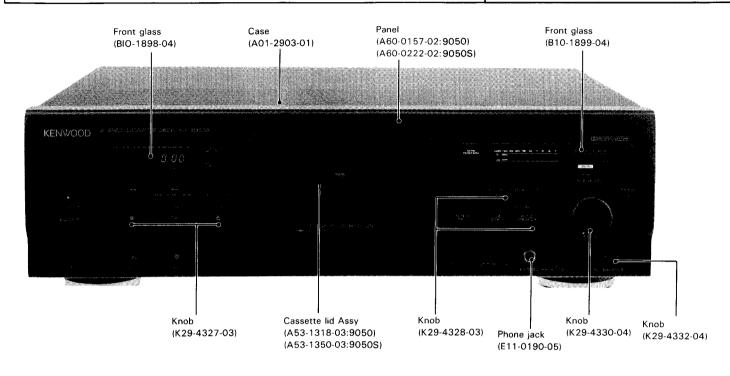
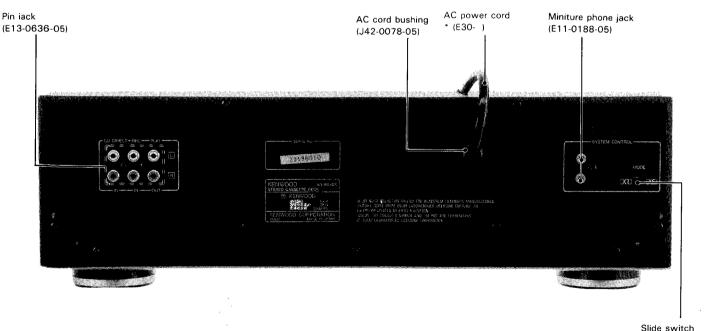
# KX-9050/S SERVICE MANUAL

# **KENWOOD**

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(S31-2094-05)

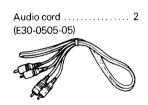
<sup>\*</sup> Refer to parts and on page 59.

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### **ACCESSORIES**



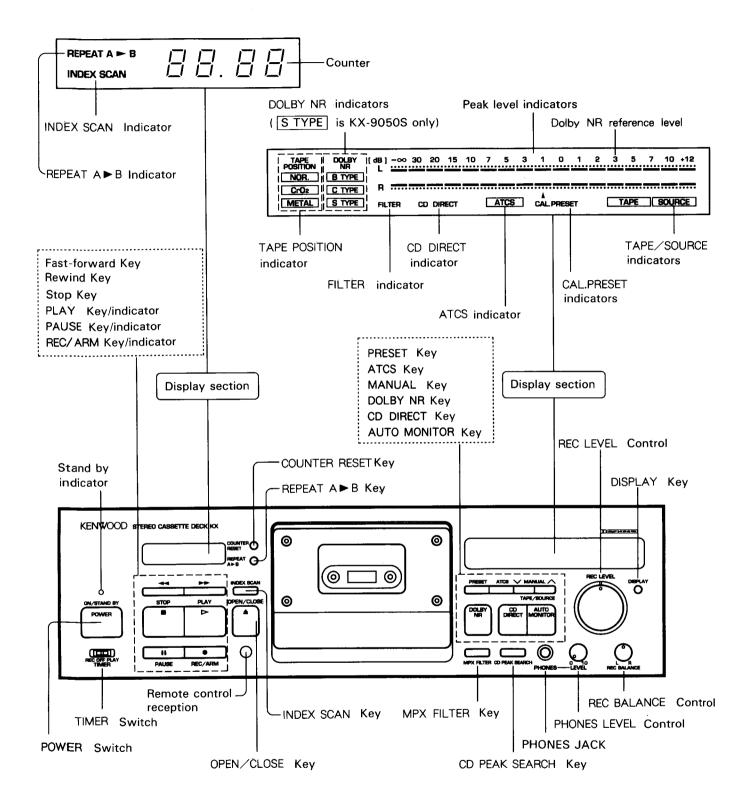
System control cord ...... 1 (Except for the U.K. and Europe) (E30-0977-05)



**INSTRUCTION MANUAL** 

B60-0688-00 ENGLISH B60-0689-00 FRENCH B60-0691-00 GE, DU, IT

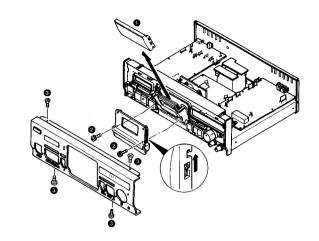
### **CONTROLS & INDICATORS**



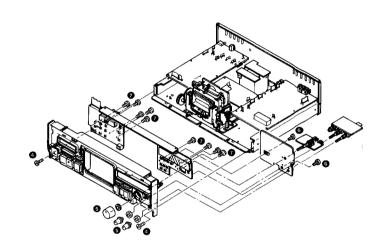
### **DISASSEMBLY FOR REPAIR**

Remove the case in advance.

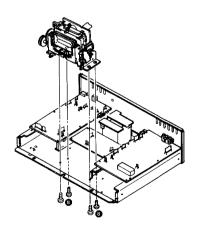
- ① Push the EJECT button to open the cassette holder. Remove the cassette lid in the arrow direction (1).
- 2 Remove the cassette lid back plate by removing the 2 screws (2).
- 3 Remove the front panel by removing the 4 screws (3).
- 4 Remove the sub panel ASSY by removing the 2 screws (4).



- (6) Remove the REC LEVEL, REC BALANCE and PHONES LEVEL knobs (6), and remove the two screws (6) of the mounting fitting in order to remove E/8 and F/8 of X25.
- The display units X25B/8, C8 and D/8 can be removed when the 9 screws (7) are removed.



7 The mechanism ASSY can be removed when the 4 screws (3) are removed.



# **CIRCUIT DESCRIPTION**

### (X25-4712)

No	Name	Function/Description	
IC81	TA8410AK	HEAD PHONE AMP	
IC82	PC4565D-D	LINE BUFFER	
IC95	PC4565D-D	LEVEL AMP BUFFER	
IC96	BA6138	LOG AMP	
IC702	µ PC7805AHF	+5V AVR	
IC703	μ PC7812AHF	+12V AVR	
IC704	BA6229	REEL MOTOR DRIVE	
IC705	BA6209	ASSYST MOTOR DRIVE	
IC706	BA6209	LORDING MOTOR DRIVE	·
IC707	BA10393	REEL PULSE DRIVE	
IC708	PST5290	RESET IC	
IC710	CXP82320-1050	μ -COM	
Q92	2SC3311A	RESET	
Q95,96	2SC3311A	LOG AMP GAIN CONTROL	
Q97	2SC3311A	LINE AMP(IC95) Rch GAIN CONTROL	ATCS : ON
Q700	DTA143TS	BIAS CONTROL INVETER	
Q701	2SB1375	-30V AVR	
Q702	2SA1309A	-30V AVR	
Q703	DTC124ES	POWER ON/OFF CONTROL	ON :POWER ON
Q704	2SA1309A	REC MUTE CONTROL	ON : MUTE ON
Q705	2SA1309A	LINE MUTE CONTROL	ON : MUTE ON
Q706	2SA1309A	ATCS CONTROL	ON : ATCS
Q707	DTC143TS	OSC FIL	ON : 10kHz
Q708	DTC124ES	ATCS OSC CONTROL	OFF : ATCS
Q709	2SC3311A	REEL MOTOR CONTROL	ON :
Q710~712	DTC113ZS	GRID DRIVER	
Q713	2SC3311A	RELAY DRIVER	ON : POWER ON
Q714	2SA1309A	RELAY CONTROL	ON : POWER ON
Q715	DTA143TS	OSC FIL CONTROL	ON ; 10kHz
Q716	2SC3311A	CAPSTAN MOTOR CONTROL	ON : MOTOR ON

### (X26-1292)

NO	Name	Function/Description	
IC1	RC4565D-D	PB EQ AMP	
	or NJM4565D-D		
IC2	CXA13305	DOL B/C decorder	
IC11	CXA13305	DOL B/C encorder	
IC21	RC4565D-D	REC EQ AMP	
IC31	μ PC1297CA	HX IC	
IC41	RC4565D-D	±8V AVR	
IC42	XRU4052B	Change DOL B/C, S SELECT	HL
	or TC4052BP	TAPE, SOURCE SELECT	A B/C S
			B TAPE SOURCE
IC51	TC9164N	TAPE SELECT / AUTO BIAS / DOLBY CONTROL	
IC52	TC9162N	REC LEVEL / INPUT / DOLBY CONTROL	

# **CIRCUIT DESCRIPTION**

### (X26-1292)

No	Name	Function/Description
Q1~4	2SK170	HEAD AMP
Q5,6	2SK170	Change 70 μ / 120 μ controled IC51 8 ,10 pin.
Q7~10	2SC3311A	HEAD AMP
Q11~14	DTC143TS	Control IC51, 22 pin MPX ON/OFF
Q15	DTC124ES	When ,ATCS OFF the DOLBY
Q19,20	2SC3311A	REC EQ CONTROL CrO2 TAPE : ON
Q21~24	2SD1302	REC MUTE
Q25,26	2SC3311A	REC EQ CONTROL CrO2 TAPE : ON
Q27,28	2SC3311A	REC EQ CONTROL METAL TAPE : ON
Q29,30	2SC3311A	REC EQ CONTROL METAL TAPE : OFF
Q31,32	2SC3940A	BIAS OSC
Q33	2SC3246	BIAS OSC CURRENT CONTROL
Q34	DTC143TS	BIAS OSC ON/OFF CONTROL REC: OFF
Q35	DTC143TS	HX ON/OFF CONTROL REC : OFF
Q41~44	2SD1302	LINE MUTE
Q45	2SD2012	+8V AVR
Q46	2SB1375	-8V AVR
Q47	DTC124ES	POWER ON/OFF CONTROL POWER ON : ON
Q48	DTC113Z	Control IC 42,10 pin B by IC710 4 pin DOLS, IC51 7 pin TAPE/SOURCE.
Q49,50	DTC124ES	) Control 10 42, 10 pin 6 by 10/10 4 pin 60L3, 1031 / pin 1AFE/300ACE.

# **CIRCUIT DESCRIPTION**

#### **Key description**

Key name	Description	Display			
FWD PLAY ►	If there is a cassette in the drive, it is played back in the forward direction. One track is repeated when this key is pushed during FWD playback.	LED lights up. ►			
FF <b>▶</b> ►	Tape wound at high speed onto right-hand reel. Skipped track selection when pushed during playback.				
RWD <b>◄</b> ◀	Tape wound at high speed onto left-hand reel. Skipped track selection when pushed during playback. REC standby when pushed during FWD REC.				
STOP	All operations are stopped.				
REC/ARM	Recording starts when pushed during STOP, REC PAUSE, ARM. If recording is in progress, ARM starts.	LED lights up. ●			
PAUSE	REC PAUSE when pushed during recording, PLAY PAUSE when pushed during playback.	LED lights up. [[			
COUNTER RESET	Resets linear counter to 0.00.  Maintains 0.00 count when key is held down.  Stops when key is pressed during zero stop.  Invalid during DPSS track selection.	0.00			
DOLBY NR	Switches the Dolby noise reduction. OFF→B→C→S (Cyclic)				
DISPLAY	Switches the display. All Display→Counter Only→All Off (Cyclic) Returns to ALL DISPLAY when POWER is turned ON. ALL DISPLAY turns ON for 3 sec, and then turns OFF when this key is pushed when DISPLAY is OFF.				
CDPS	Changes over to REC PAUSE, and then switches MONITOR to SOURCE when CD peak search key is pressed.	PLAY, REC PAUSE LED light up. ► ●			
A/B REPEAT	Plays the section A-B of the tape back. (Only during playback) When the key is first pressed, point A is memorized, and when the key is pressed again, point B is memorized. When REWIND is pressed, playback starts from point A, and is repeated 16 times.  — If any other key is pressed, the A-B repeat function is cancelled. Returns to normal operation offer 16 times.  At least 10-second spacing required between points A and B.				
ATCS	Automatic adjustment of BIAS and LEVEL. Reset when pressed after presetting.	• ATCS			
PRESET	ATCS preset: The current optimum bias value and level value are stored in the memory.  ATCS not preset: The memory is recalled.	CAL PRESET			
BIAS CONTROL	Fine adjustment (± 3 steps) of bias. Valid only when ATCS is lit. (Irrespective of mechanism operation).	CAL			
AUTO MONITOR	Performs TAPE/SOURCE switching. Switches automatically to TAPE during PLAY and REC. Switches automatically to SOURCE during REC PAUSE. Performs forcible switching to TAPE and is locked therein during DPSS.				
POWER	Turns the POWER ON when first pressed, and turns it OFF when pressed again. Can not be pressed repeatedly within 1 second.				
CD DIRECT	Input signal (CD) can be recorded without passing through the volume. It can be turned ON/OFF also during recording.	CD DIRECT			
OPEN/CLOSE	Opens/closes the door. If pressed when the mechanism is operating, it stops the mechanism, and then opens the door. Opens/closes the door also when the POWER is OFF.				
MPX FILTER	Turns the MPX filter ON/OFF. This function is cancelled when CD DIRECT is ON, and returns to the original state when it is OFF.	FILTER			

# **CIRCUIT DESCRIPTION**

#### Operation description (DPSS)

Key name	Description	Display
INDEX SCAN	Beginning of each track is played back successively for approximately 10 seconds.	Flickering Number of playbacks
Zero stop	Stops the counter at 0.00	
FF search	Skips forth (relative to the playback direction) the number of tracks (up to 16) equivalent to the number of times the FF key is pressed.  If FF is pressed again during FF search, the number of times the key is pressed is added to the number of tracks to be skipped.	Number of Number of key entries tracks
RWD search	Skips back (relative to the playback direction) the number of tracks (up to 16, including the current track) equivalent to the number of times the REW key is pressed.  If the RWD key is pressed during RWD search, the number of times the key is pressed is added to the number of track to be skipped.	Number of playbacks
One-track repeat	The current track is played back 16 times repeatedly, and then the normal playback is resumed, when the PLAY key is pressed once during playback or twice during any other operation. When the PLAY key is pressed again while a track is being repeated, the track is repeated 16 times from that time.	Number of playbacks
Rewind play ◀◀ & ►	When the RWD and PLAY keys are pressed together, the tape is rewound to its end (RWD), and then a FF search is done on the forward side. When the first track is detected, playback starts.	
Dash & Play ◀◀ & ►►	Playback is performed when FF and RWD keys are pressed together. Cues and searches for the next track If a blank section continues for 10 seconds during playback. Playback is resumed when a track is found. This is repeated 16 times (16 sides).	Number of playbacks.
Rerec standby	If RWD key is pressed during REC, tape is reviewed (RVW) and played back when end of previous track is found. Playback lasts 2 seconds and then stops.	
Auto rec mute	If REC key is pressed again during recording, or REC key is pressed twice during STOP or REC PAUSE, REC MUTE turns ON for 4 seconds, recording is performed, and then REC PAUSE is resumed.	

### CIRCUIT DESCRIPTION

#### **Dolby S Noise Reduction**

Figure. 1 indicates the basic block diagram of the Dolby S NR concept.

It operates as a decoder when the Dolby S ENCODER unit is placed within the OP1 NF loop, and operates as an encoder when it is place outside it.

Input level settings are as follows:

During encode: -6 dBm -20 log (1 + R1/R2)

During decode:  $-6 \text{ dBm } -20 \log (1 + R3/R4)$ 

The test point and Dolby level will be -6 dBm (388 mV) during encode input with a 400- Hz sine wave signal.

Figure. 2 indicates the block diagram for the Dolby S encoder.

As with Dolby C, it has a two-level phase process (high-level phase and low-level phase); however, the difference is that to improve the noise in the low-frequencies (40-200 Hz), a low-frequency fixing band is added to the high level and a high-frequency fixing band is added to correct the noise in the high level, low level, and middle range (400-12.8 kHz). At this time, the role of the high-range fixing band will be used to correct the noise in music signals even when there are numerous high-range spectrums that are at a high level. In this case, the boost frequency will fall out side the audible range if only the sliding band is available, and the operations will be completed even when the noise connot be corrected. Furthermore, a control signal to validly operate every respective sliding band, high-range fixed band, and low-range fixed band comes in four-types, MC1 ~ 4, and each signal processing portion is combined with the internal control signal to undergo operations.

Figure. 3 shows the block diagram for the Dolby S noise reduction IC (CXA1417S).

The low range is 10 dB and the high range is 24 dB as the noise reduction effect. In addition, a tape recorded in Dolby S is compatible with Dolby B play back.

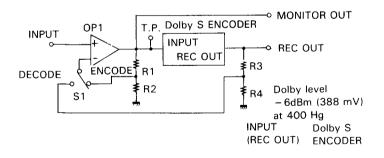


Fig. 1 Block Diagram

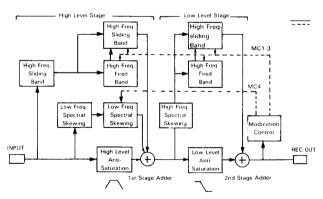


Fig. 2 Dolby S Encoder Block Diagram

### CIRCUIT DESCRIPTION

#### 1. Block Diagram

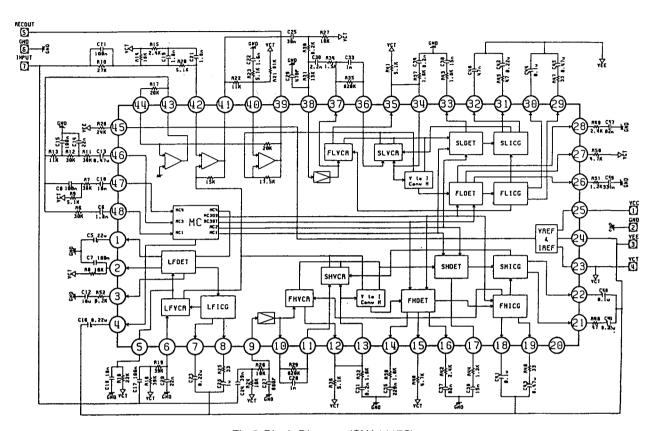


Fig.3 Block Diagram (CXA1417S)

#### Point to note when using Dolby S IC (CXA1417S)

#### (1) DC Check (when no signal)

Termi	inal	V	oltage (V)
Name	Pin No	TYPE	Measured value
MCTC	4	-3.9	$-3.9 \pm 0.3$
TCL 1 TCL 2	7 8	-4.6	-4.0 ~ -5.0
TCF1H TCF2H	18 19	-4.6	-3.8 ~ -5.0
VRX	20	-3.4	-3.4 ~ -3.8
TCS2H TCS1H	21 22	-4.6	-4.6 ~ -5.0
TCF2L TCF1L	29 30	-4.6	-3.6 ~ -5.0
TCS2L TCS1L	31 32	-4.6	-4.6 ~ -5.0
IREF	45	-4.8	-4.8 ~ -5.1
OTHER		0.0	0.0

Note: If there is a solder bridge or a "whiskered" solder, the observed voltage cannot be obtained.

#### (2) Checking the Frequency Characteristics

Defective frequency characteristics (1) will be caused by defective soldering of parts, even if the terminal voltage has been thoroughly checked. The quality of the product cannot be determined without checking the frequency characteristics of both the encoder and decoder at the Dolby level and at the Dolby level of  $-20 \, dB$ .

#### How to check the encoder (Turn MPX Filter off)

- (i) Set the S-type encoder INPUT (at test point (T .P.)) to 400 Hz and a -6 dBm (388 mV) Dolby level to adjust the AG output level.
- (ii) Alter the AG frequency through 20, 50, 100, 4 00 2k, 5k, 10k and 20k Hz reading the REC OUT leve I while maintaining the status described in (i), then check that the REC OUT levels are within ± 1.5 dB.
- (iii) Set the S-type encoder INPUT (at T.P.) to 4(O Hz and a 26.0 dBm (38.8 mV) Dolby level to adjust the AG output level.
- (iv) Repeat step (ii).
- (v) Check the left and right channels when at he Dolby level and the -20 dB Dolby level.

### **CIRCUIT DESCRIPTION**

#### How to check the decoder

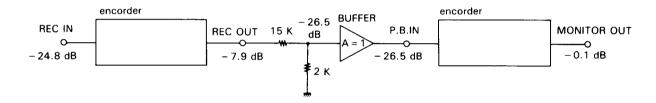
- (i) Set the S-type encoder INPUT (point T.P.) to 400 Hz and a - 6 dBm (388 mV) Dolby level to adjust the AG output level. Then program the REC OUT output level.
- (ii) While altering the AG frequency through 20, 50, 100, 400, 2k, 5k, 10k and 20 k Hzp correct the S-type NR encod characteristics to the REC OUT output level programmed in step (i), and adjust the AG output level to check whether the INPUT (point T.P.) levels are within ± 1.5 dB.
- (iii)Adjust the AG output level so that it will be -20 dB lower than the REC OUT output level programmed in step (i).

- (iv)Repeat step (ii).
- (V) Check the left and right channels when at the Dolby level and the -20 dB Dolby level.

#### Checking with both the encoder and decoder.

Basically, it is be checked through combination of the encoder and decoder, respectively.

The check point is the BUFFER AMP output and two points of the MONITOR OUT. The encoder characteristics are checked at BUFFER OUT and the decoder characteristics are checked at MONITOR OUT

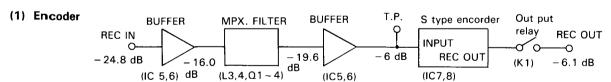


Note: The O dB level when a 400 Hz sine wave signal is input is 775 mV.

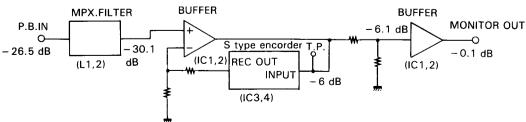
Input Level	Frequency (Hz)											
	20	50	100	200	400	500	1k	2k	5k	10k	15k	20k
dB												
+10	-7.2	- 3.5	- 2.4	- 1.6	- 1.2	- 1.2	- 1.0	- 1.1	-3.4	-6.2	- 7.5	-9.0
0	-6.5	-2.0	-0.1	0.1	0.0	0.0	0.0	-0.3	-2.4	-5.2	-6.7	-8.4
-10	-4.7	-0.6	3.0	3.4	2.8	2.7	2.4	1.8	-0.1	- 2.1	-3.2	-4.5
-20	- 1.4	2.0	6.2	7.8	7.4	7.2	6.6	5.9	4.1	2.9	2.1	0.8
-30	2.0	5.9	9.5	12.3	12.5	12.5	12.1	11.4	9.8	8.9	8.0	6.3
-40	2.5	7.4	10.9	15.0	16.9	17.1	17.2	16.6	15.4	14.7	13.2	10.1
<b>-50</b>	2.5	7.5	11.0	15.2	19.5	19.5	21.6	21.2	20.3	19.2	16.4	11.5
-60	2.5	7.5	11.0	15.2	19.8	19.8	23.3	23.5	22.8	21.5	17.4	11.6

Table 1 S-type NR encode characteristics.

#### (2) Block Diagram



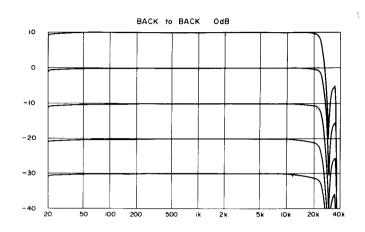
#### (2) Decoder

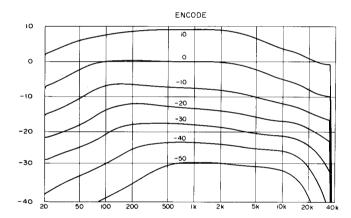


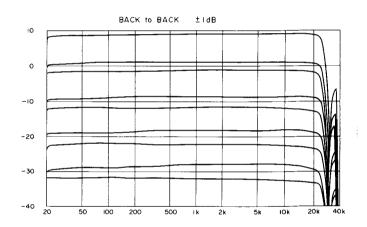
Note: The OdB level when a 400Hz sine wave signal is input is 775 mV.

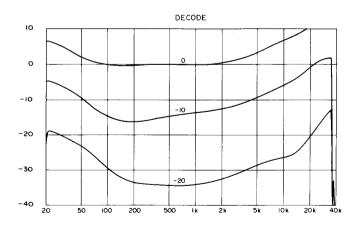
### **CIRCUIT DESCRIPTION**

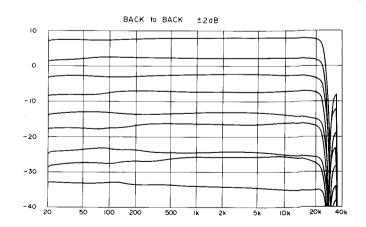
The appendix will include the encode characteristics, decode characteristics, and encode plus decode (back to back) graph. The back-to-back characteristics are represented in the graph as a reading of decoding by shifting the input level.





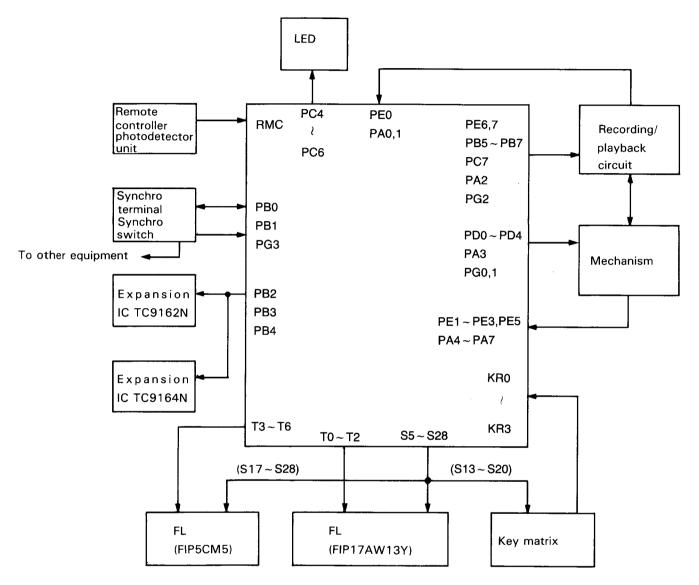






### **CIRCUIT DESCRIPTION**

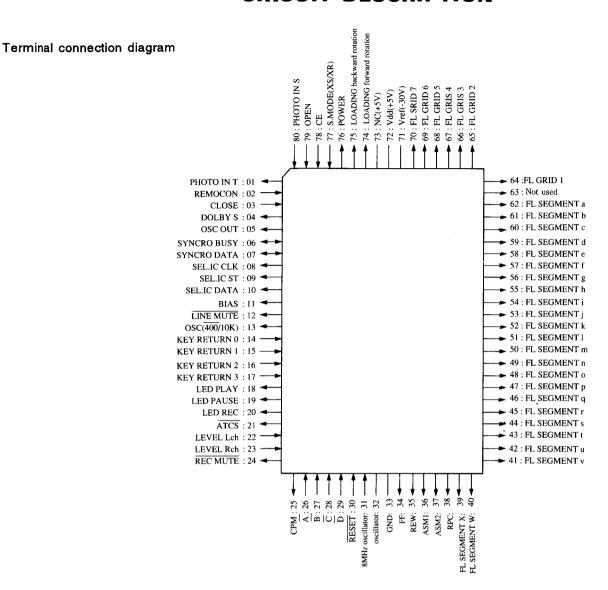
#### Microcomputer periphery block diagram



#### **KEY MATRIX**

	KR0	KR1	KR2	KR3
KS0			TEST 1	TEST2
KS1	DIRECT	CDPS	LOADING	INHFB
KS2	PRESET	DOLBY	C. RESET	METAL
KS3	ATCS	MPX	A ► B	CrO <sub>2</sub>
KS4	DOWN	•	I. SCAN	HALF
KS5	MONITOR	11	<b>&gt;</b>	DOLBY S
KS6	UP		<b>&gt;&gt;</b>	T. PLAY
KS7	DISPLAY	POWER	44	T. REC

### **CIRCUIT DESCRIPTION**



\*Ports 54 to 47 are also used as key scan 0 to 7.

#### Pin Description

Pin No.	Pin Name	I/O	Name	Description	
1	PE3/INT3	ı	PHOTO IN T	Photosensor input (take-up side)	
2	PE4/REM	1	REMOCON	Remote control input	
3	PE5	1	CLOSE	Loading close detector switch input	
4	PE6	0	DOLBY S	Dolby S changeover output	
5	PE7/TO	0	OSC OUT	Square wave output terminal	
6	PB0/CINT	I/O	SBUSY	Serial BUSY input/output	
7	PB1/CS0	I/O	SDATA	Serial data input/output	
8	PB2/ SCKO	0	CLK	Clock output for selector IC	
9	PB3/SI0	0	ST	Strobe output for selector IC	
10	PB4/S00	0	DATA	Data output for selector IC	
11	PB5/SCK1	0	BIAS	Bias ON/OFF control	H: 0N
12	PB6/SI1	0	LINE MUTE	Line mute control	L: 0N
13	PB7/SO1	0	OSC FILTER	400 /10K filter switching	
14~17	KR0~3	T	KRO~3	Key return signal input	
18	PC4/KR4	0	LED PLAY	Play LED driving port	
19	PC5/KR5	0	LED PAUSE	Pause LED driving port	
20	PC6/KR6	0	LED REC	Rec LED driving port	_

# **CIRCUIT DESCRIPTION**

Pin Description

Pin No.	Pin Name	1/0	Name	Description
21	PC7/KR7	0	ATCS	ATCS NORMAL/ OSC switching
22	PAO/ANO	1	LEVEL Lch	Lch level input
23	PA1/AN1		LEVEL Rch	Rch level input
24	PA2/AN2	0	REC MUTE	Rec Mute control L: ON
25	PA3/AN3	0	CPM	Capstan motor ON/OFF control
26	PA4/AN4		Α	Mechanism position detector encoder A
27	PA5/AN5	I	В	Mechanism position detector encoder B
28	PA6/AN6	1	С	Mechanism position detector encoder C
29	PA7/AN7	1	D	Mechanism position detector encoder D
30	RST	1	RESET	Reset signal input L: RESET
31	EXTAL	1		Clock oscillator connection terminal
32	XTAL			Clock oscillator connection terminal
33	Vss			GND terminal
34	PD0/S0	0	FF	Reel motor control
35	PD1/S1	0	REW	Reel motor control
36	PD2/S2	ō	ASM1	Assist motor control 1
37	PD3/S3	ō	ASM2	Assist motor control 2
38	PD4/S4	0	RPC	
39	PD5/S5	0	x	Reel speed control H: Normal
40	PD5/S5	0		FL segment
		0		FL segment
41	PD7/S7	_	V	FL segment
42	PF0/S8	0	u	FL segment
43	PF1/S9	0	t	FL segment
44	PF2/S10	0	S	FL segment
45	PF3/S11	0	r	FL segment
46	PF4/S12	0	q	FL segment
47	PF5/S13	0	р	FL segment key scan signal output 7
48	PF6/S14	0	. 0	FL segment key scan signal output 6
49	PF7/S15	0	n	FL segment key scan signal output 5
50	S16	0	m	FL segment key scan signal output 4
51	S17	0	1	FL segment key scan signal output 3
52	S18	0	k	FL segment key scan signal output 2
53	S19	0	j	FL segment key scan signal output 1
54	S20	0	i	FL segment key scan signal output 0
55	T15/S21	0	h	FL segment
56	T14/S22	0	g	FL segment
57	T13/S23	0	f	FL segment
58	T12/S24	0	е	FL segment
59	T11/S25	0	d	FL segment
60	T10/S26	0	С	FL segment
61	T9/S27	0	b	FL segment
62	T8/S28	0	а	FL segment
63	T7	0		not used
64	T6	0	1G	FL grid
65	T5	0	2G	FL grid
66	T4	0	3G	FL grid
67	T3	0	4G	FL grid
68	T2	0	5G	
69	T1	0	6G	FL grid
70	TO		7G	FL grid
	<del></del>	0	70	FL grid
71	V FDP			Voltage supply terminal for FL
72	V DD			Positive power supply terminal
73	NC	+-		
74	PG0	0	Forward rotation	Power loading forward rotation control
75	PG1	0	Backward rotation	Power loading backward rotation control
76	PG2	0	POWER	Power ON/OFF control
77	PG3	. 1	S. MODE	Synchro mode (XS/ XR ) discrimination
78	PEO/INTO		CE	Backup detection terminal
79	PE1/INT1	1	OPEN	Loading open detector switch input
80	PE2/IN2		PHOTO IN S	Photosensor input (supply side)

### **CIRCUIT DESCRIPTION**

#### Operating specifications

#### **Function description**

- (1) Features
- Amorphous 3 head closed loop dual capstan
- ② Direct drive capstan/reel/actuator motor
- 3 A.T.C.S (AUTO TAPE CALIBRATION SYSTEM) Fine adjustment
- **(4)** Power loading
- (5) D.P.S.S
- 6 CD direct
- ② Equipped with Dolby B.C.S (S available only in KX-9050S)
- (8) Full cassette stabilizer
- 9 Dual FL display
- 10 High bias system
- (1) Center mechanism layout
- (2) Objects of control
- Cassette mechanism : D40-0992-15 (KX-9050)

:D40-1224-15 (KX-9050S)

2 Loading mechanism :D-40-0996-05

(3) IC

:TC9162N, TC9164N

4 Display

:FL, LED

- 5 Recording/playback circuit unit
- 1.2 Specifications, depending on model Diode switch provided/not provided (KSO-KR1)... Dolby S provided/not provided.

#### Operating Specifications

1) ATCS (AUTO TAPE CALIBRATION SYSTEM) Carries out automatic adjustment of the bias value (10 KHz, 16 adjustable steps) and level value (400 Hz, 16 adjustable steps).

#### a: Bias Adjustment

400 Hz and 10 KHz are generated alternately after forwarding the reader tape in blank (approximately 10 seconds), and their levels are monitored. The bias value is changed while doing so, and the value at which 400  $Hz \le 10$  KHz is regarded as the optimum bias value.

#### Level Adjustment

After finishing the bias adjustment, the level obtained when entering the 400 Hz signal without passing through the head is stored in advance in the memory (reference). Next, 400 Hz signal is generated bY the oscillator, and the Rch level is monitored. The level value is changed while doing so, and the value in which reference ≤ Rch is regarded as the optimum level value. Bias Fine Adjustment (BIAS CONTROL)

Fine adjustment is available only after ATCS presetting (when ATCS lamp is ON) (Irrespective of mechanism operation). The variable range is up to  $\pm 3$  steps. No variation is available, however, when the said steps exceed the 16-step variable range (the bar of the rightmost side flickers). There is no variation when the key is kept merely pressed.

#### Preset

The bias value and the level value preset bY ATCS can be stored in the memory. The bias value and the level value are stored in the memory when the PRESET key is pressed after presetting the ATCS. There are 3 types of memory, chrome, normal and metal. The memory is recalled when the PRESET key is pressed while the ATCS lamp is lit, and the function is reset when the key is presed again.

ATCS is preset by carrying out the steps a. and b. above. When either a. or b. can not be preset due to malfunction of the tape and other reasons, reset the ATCS mode, and return the bias value and the level value to the initial state.

#### 2 Power loading (OPEN/CLOSE)

In the basic operation the power loading motor is rotated for a given time (forward rotation) when the OPEN/CLOSE key is pressed once. When it is pressed again, the motor is rotated for a given time (backward rotation), and the door is closed. When the door is fully closed, the switch recognizing its closure (CLOSE SW) is turned ON. There are the following kinds of special operation.

- a: If a basic operation key (PLAY, FF, REW, REC, PAUSE, STOP) is pressed while the door is opening, the door is closed, and then the operation corresponding to the key is question is started. (The door is merely closed when there is no cassette in the drive. It opens again, however, when REC or REC PAUSE is pressed).
- b: OPEN/CLOSE operation is possible also when POWER is OFF. (When AC is ON), If POWER is turned ON or OFF when the door is open, it is all osed.
- c: If the OPEN/CLOSE key is pressed with the mechanism in operation, the operation of the mechanism is stopped, and then the door is opened.
- d: If the door is touched gently with the hand while it is opening, the motor is rotated for a giver time

### **CIRCUIT DESCRIPTION**

when the OPEN recognition switch is turned OFF, and the door is closed. The same operation is carried out also when the door is pushed forth.

- e: If the door is held in place with the hand when it is about to be opened, the motor is rotated for a given time, and after that the motor is stopped. The door is opened by inertia when the hand is released.
- f: The same operation as e. is carried out when the door is caught by something or stopped by hand while it is opening (when both recognition switches are OFF).

The door opens when it is caught by something or held by hand while it is closing (when both recognition switches are OFF).

3 CD direct

The CD can be recorded without passing through the volume. ON/OFF is possible also during the recording. If CD DIRECT is turned ON, MPX is turned forcibly OFF, and the MPX key is inhibited while CD DIRECT is ON. MPX is returned to its previous state when CD DIRECT is turned OFF.

4 Counter Linear counter. The counter value is backed up when the power is turned OFF. Start shift diagram

(1) Auto stop

The signal of the photoreflector located behind the reel stand is read, and when a given state (H or L) is kept 1 or 2 more seconds during PLAY, REC, FFD, RWD, CUE or RVW, the situation is interpreted as tape end, and the operation shown in the table below are carried.

	operation mode	state
ے	PLAY	STOP
atio	FFD	STOP
normal operation	RWD	STOP
0 2	REC	STOP
D	One-trac repeat , auto rec mute , re-rec standby	STOP
Р	Rewindplay	During RWD: FF search
	FF search, RWD search,	STOP
s	INDEX SCAN	
	Dash & play	
s	PLAY & CUE	
Ŭ	RWD	1st to 15th time : CUE
		16th time : STOP
	ATCS	STOP

#### State shift of circuit system

sta	ite During ATCS	ATCS presetting	CD DIRECT	CD DIRECT	CDPS
Item	presetting	finished	ON	OFF	
	During reference :				
TAPE/SOURCE	SOURCE	TAPE	No change	SOURCE	SOURCE
	Others : TAPE	·			
MPX	No change	No change	OFF	Return to previ-	No change
				ous state	
DIRECT MODE	No change	No change	ON	OFF	No change
OO ON/OFF	OFF	Return to previ-	No change	No change	No change
	:	ous state			_
DXO B/C	В	Return to previous state	No change	No change	No change
DCD S	ON	Return to previous state	No change	No change	No change
DOLBY S	OFF	Return to previous state	No change	No change	No change
LINE	No change	No change	OFF	ON	No change
DIRECT	No change	No change	ON	OFF	No change

### **CIRCUIT DESCRIPTION**

#### **TEST MODE**

#### (1) Initial states

Item	State
POWER	OFF
DOLBY	OFF
CE DIRECT	OFF
AUTO MONITOR	TAPE
MPX FILTER	OFF

#### Backup data

- 1 POWER
- (2) DOLBY
- ③ CD DIRECT
- (4) AUTO MONITOR
- (5) MPX FILTER
- 6 PRESET
- 7 ATCS data (NORMAL CrO2, METAL)
- (8) Linear counter

#### **SELECT IC Data**

-	TC9164	N (IC51)		TC9162N (	IC52)
Item	State	Item	State	Item	State
CrO2 L	OFF	BIAS1	ON	LEVEL1	ON
NOR L	OFF	BIAS2	ON	LEVEL2	ON
CrO2 R	OFF	BIAS3	ON	LEVEL3	ON
NOR R	OFF	BIAS4	ON	LEVEL4	OFF
TAPE/	ON	MPX	OFF	LINE	ON
SOURCE					
CROM	OFF	DIRECT MODE	OFF	DIRECT	OFF
METAL	ON	ON/ OFF	OFF	DXO S	ON
METAL	OFF	DC B/C	ON		_

#### (2) Test mode

Presetting method: TEST1 KS0 (j) → KR2

TEST2 KSO (j) → KR3

The operation mode is switched to the test mode by short-circuiting the 2 terminals mentioned above with a diode, and by turning the power ON.

Resetting method: The test mode is reset by pressing the PAUSE key. The contents of the test mode are not backed up.

#### (a) Specifications common to both TEST 1 and 2

1 All display ON

The display turns ON approximately 500ms after turning the power ON, and remains ON for approximately 1.5 second.

The keys are enabled by resetting the ALL DISPLAY ON state.

#### ② Mechanism SW display

The states of the various mechanism SW are displayed on the level meter section when LINE MUTE is ON.

CrO2,

METAL,

F.REC INH

+ 3dB

+ 7dB

+12dB

3 Direct change

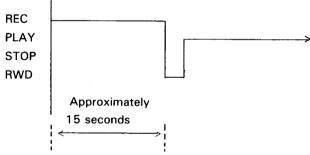
The operation mode goes to the direct REC state also from the PLAY state.

4 Timer PLAY

The operation mode switches to PLAY within the shortest time (approximately 2 seconds) when the timer SW is set to PLAY.

(5) Timer REC

When the timer SW is set to REC, automatic recording and playback can be carried out in conformity with the time chart shown below.



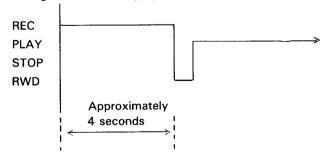
6 CDPS

When the CDPS key is entered, the "CCRS start" serial code is emitted, and after that the operation mode is switched to REC PAUSE.

#### (b)TEST1 specification

(1) 4-second REC

When the REC key is pressed, recording is carried out for 4 seconds, the tape is rewound down to its beginning, and then it is played back.



### **CIRCUIT DESCRIPTION**

#### ② ATCS

The ATCS presetting time is shortened (Approximately 20 seconds → Approximately 10 seconds).

#### ③ PRESET

Storage of the bias and level vales, and shortening of recalling time.

#### (c) TEST2 specifications

#### 1 ATCS

The operation mode is switched to the recording state, and the input is switched to the internal oscillator side. Then, 400Hz is generated for 0.4 second, and 10KHz is generated for 0.6 second. Simultaneously, the bias terminals (4) are changed by 4 steps at 0.2 second intervals. After that, the level terminals (4) are changed in 4 steps at 0.2 second intervals. After finishing the said operations, the operation is returned to the original line input, and the bias and level are returned to their initial values. The recording operation is continued.

#### (2) MPX filter

MPX filter is ON only when MPX key is ON. It is OFF at all other times.

#### 3 Dolby

DOLBY B when FFD key is ON.

DOLBY C when RWD Key is ON.

DOLBY S when I. SCAN key is ON.

### **CIRCUIT DESCRIPTION**

A, B, C, D: Cam switch

Bias oscillation H: ON L: OFF

MONITOR: Automatic monitor control H: TAPE L:

Line mute control H: OFF L: ON

R. MUTE: Rec mute control H: OFF L: ON

SOURCE

BIAS:

L.MUTE:

#### Timing chart

Mechanism timing chart

The control method consists of rotating the cam gear of the center of the mechanism by means of the assist motor, detecting the current cam mode by means of the 4-bit rotary switch code mounted on the cam gear, and moving to the desired position. The timing is shown below.

CMP:

Capstan motor control L: ON H: OFF

R.FFD:

Reel motor control (forward side)

R.RWD:

Reel motor control (return side)

ASM1:

Assist motor control 1

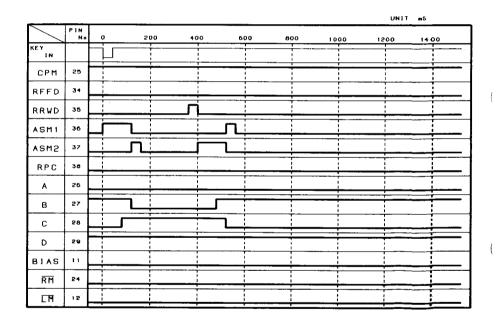
ASM2:

Assist motor control 2

RPC:

Reel motor speed control H: LOW L: HIGH

When POWER ON
When tape is loaded
(24ms rewinding to eliminate tape slackness)

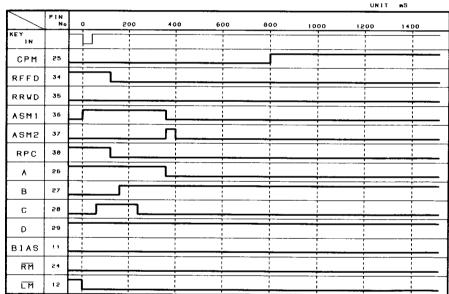


### **CIRCUIT DESCRIPTION**

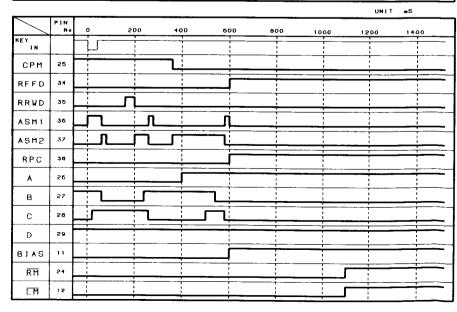
TIMING CHART STOP TO PLAY

1000 CPM RFFD RRWD ASM1 37 ASM2 RPC 26 Α 27 В 56 С BIAS 11 24 RMLM 12

PLAY TO STOP

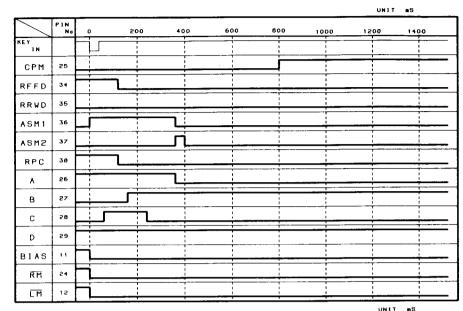


STOP TO REC

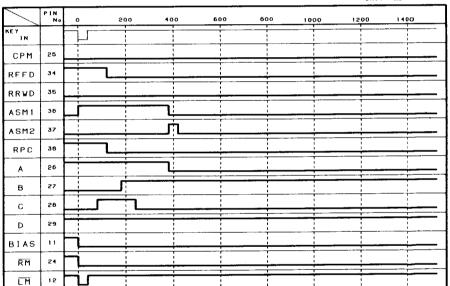


### **CIRCUIT DESCRIPTION**

**REC TO STOP** 

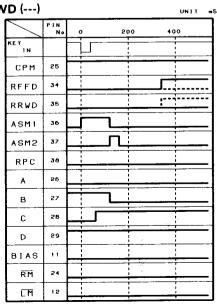


REC to REC PAUSE



FF/RWD TO STOP

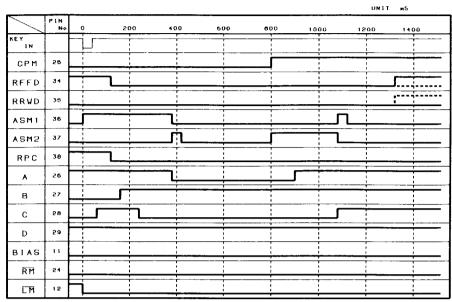
STOP TO FF/RWD (---)



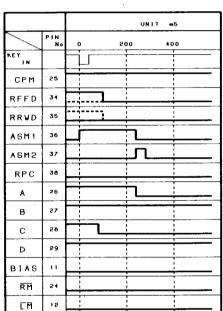
25 CPM RFFD 34 35 RRWD 36 ASM1 37 ASM2 RPC 38 26 27 28 29 1.1

### **CIRCUIT DESCRIPTION**

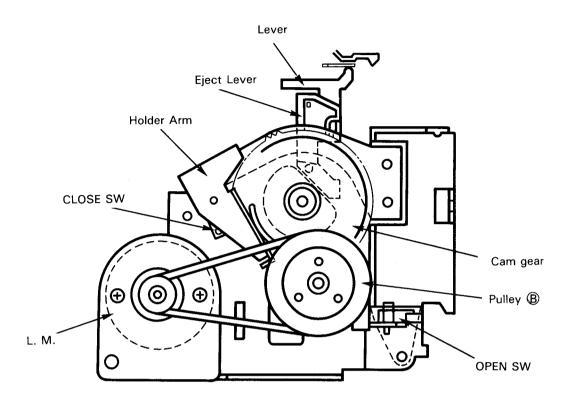
PLAY TO CUE/RVW (---)



CUE/RVW TO STOP



### **MECHANISM DESCRIPTION**

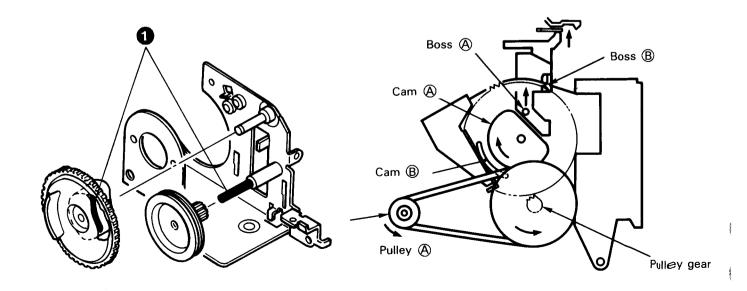


# → POINT WHICH SHOULD BE GREASED Dow corning wo5-0130-00

Section

#### **OPENING THE HOLDER**

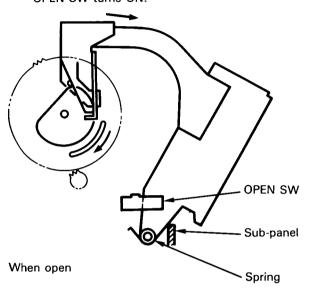
- 1) Push the OPEN/CLOSE switch.
- (2) The LM starts rotating.
- 3 The cam gear starts rotating via pulley.
- 4 The cam of the cam gear is released from the tongue of the holder arm.
- (5) Since the boss (A) of eject lever is pushed up at the same time, the boss (B) of INTER LOCK LEVER is also pushed up, and the tape SW is flicked up.



### **MECHANISM DESCRIPTION**

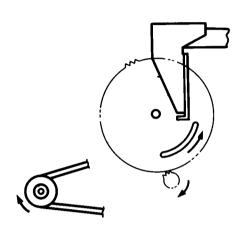
When the cam B of the cam gear separates from the holder tongue, the holder begins to be opened by the spring, and stops at the position where it touches the sub-panel.

At that time the CLOSE switch turns OFF, and the OPEN SW turns ON.  $\,$ 



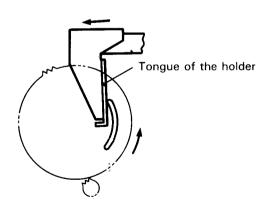
#### **CLOSING THE HOLDER**

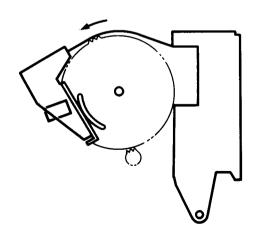
- 1) Push the OPEN/CLOSE switch.
- ② The LM starts rotating, and as a consequence the cam gear starts rotating.



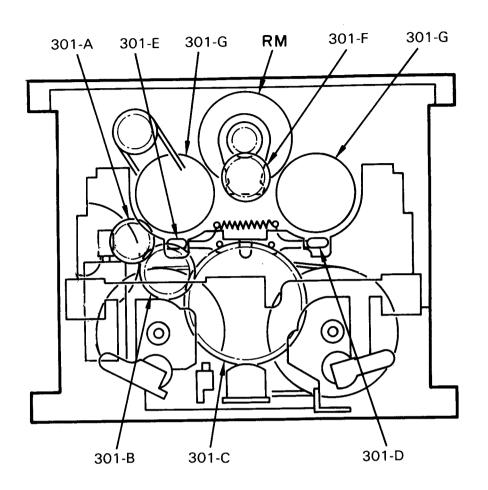
- 3 The cam 

  B of the cam gear touches the tongue of the holder, and the holder is pushed to the arrow direction.
- The cam gear continues to rotate, and when it reaches the position shown in the figure the CLOSE switch turns ON. The rotation stops and the holder is closed.





# **MECHANISM DESCRIPTION**



#### Mechanism specification

Use of parts

MM T42-0560-08 DC MOTOR ASSY (CAPSTAN)

RM T42-0612-08 Reel motor

AM T42-0593-08 DC MOTOR ASSY

BM D16-0335-08 Main belt BR D16-0325-08 Reel belt

301: A10-2982-08 Chassis assy

301- A Gear

301- B Gear

301- C Cam gear

301- D Brake lever (L)

301- E Brake lever (R)

301- F Idler gear

301- G Reel stand

PLAY Torque: 35 ~55 g·cm FF/RWD Torque: 70 ~160 g·cm Back Tension Torque: 2 ~5 g·cm

### **MECHANISM DESCRIPTION**

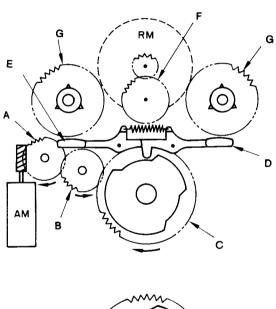
#### **Description of Operation**

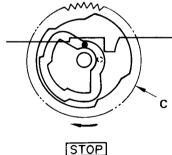
#### Playback/Record

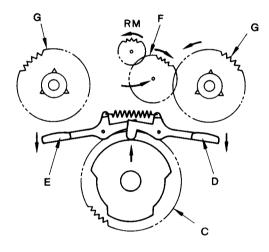
- 1. The assist motor runs.
- 2. Relay gears A and B turn the cam gear in the direction of the arrow, raising the boss on the head chassis. The pinch roller is pressed against the capstan.
- 3. In the PLAY position, the reel brake is released by the cam on the cam gear.
- 4. The reel motor runs in the direction of the arrow, and the idler gear starts turning the takeup reel in the direction of the arrow to start playback/recording.

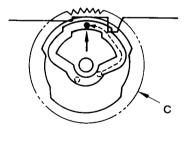
#### Playback/Record → STOP

The assist motor runs, and the operations up to play-back/rocord are reversed.







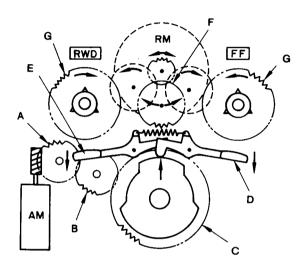


PLAY/REC

### **MECHANISM DESCRIPTION**

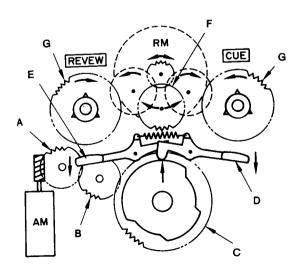
#### Fast forward Rewind

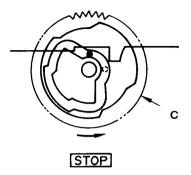
- The assist motor rotates the cam gear, and the brake assembly is disengaged from the takeup and supply reels.
   The head chassis is not lifted, and the pinch roller and head do not contact the tape.
- 2. The reel motor starts running in the fast forward or rewind directions to wind the tape forward or in reverse.

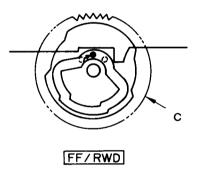


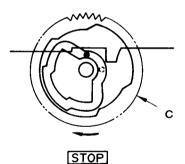


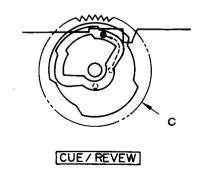
- The assist motor runs, the cam gear turns, and the head chassis is raised. The pinch roller is also raised, but is not pressed against the capstan. The head contacts the tape.
- The reel motor runs in the cue and revew directions. When the motor runs in the cue direction, the takeup reel is turned by the idler gear; when the motor runs in the revew direction, the supply reel turns to wind the tape.









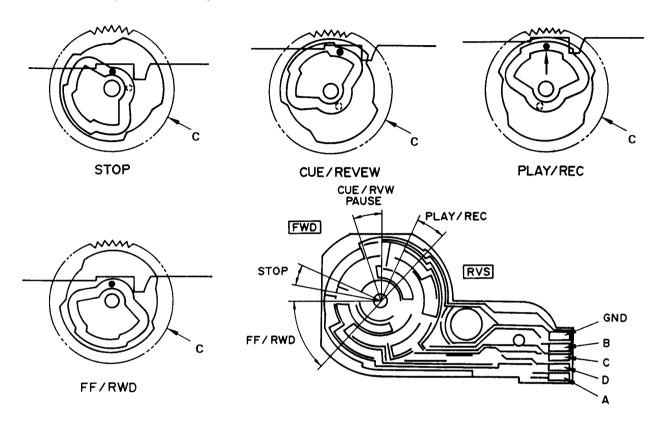


### **MECHANISM DESCRIPTION**

#### **Rotary switch operation**

The operation of the mechanism is determined by the position of the rotary switch on the cam gear. Data on rotary switches A to D is input to the micropocessor to control

the assist motor, turn the cam gear, and control the head position and the brake assembly.



Rotary switch cam flow

Direction	on				RVS (unused	1)						FWD			
Mode		PLAY PAU CU REV		PAUSE CUE REV	PAUSE ST CUE REV		STOP	FF/RWD	FF/RWD		STOP		PAUSE CUE REV		PLAY
Cam a	ingle	20°	24°	18°	46°	14.5°	11°	46.5°	46.3°	11°	14.5°	46°	18°	24°	20
Rotary switch	A L H L H L L H L								(L) (H) (H)				(E) (E) (E)		(H)
Head base position (approxi- mate)	PLAY PAUSE STOP														

### **ADJUSTMENT**

#### RECORD/PLAYBACK UNIT

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	CASSTTE TAPE DECK SETTINGS	ALIGNMENT POINTS	ALING FOR	FIG.
C	ASSETTE DECK SECTION	TAPE : NORMAL,	DOLBY: OFF, INPUT: L	INE		0dBs=0.7	75V
[1]	BIAS OSCILLATING FREQUENCY	Load the non recorded tapes on Deck	Connect the frequency counter between TP5 and GND or TP6 and GND	REC	L33 (X26-129 B/2)	Adjust so that the frequency counter shows 210kHz.	
[2]	BIAS LEAK	Load the non recorded tape on Deck	Connect the AC VOLT METER between TP5 and TP6.	Load a metal tape.	L 23 (L) L 24 (R) (X26-129 B/2)	Minimum	
[3]	HX VCA	Load the non recorded tape on Deck	Connect the oscilloscope between TP3 and TP4	REC	L 31 (L) L 32 (R) (X26-129 B/2)	Minimum	
		MTT-150 400Hz (200nWb)				Output level : -1.2dBs	
[4]	PLAYBACK LEVEL (1)	MTT-256,SCC-1727 315Hz (160nWb)	(B)	(DOLBY OFF : 9050) (DOLBY S : 9050S) PLAY	VR 1 (L) VR 2 (R) (X26-129 A/2)	Output level : -4.0dBs	
		MTT-256U,TCC-160 315Hz (250nWb)			(, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Output level : 0 dBs	
	PLAYBACK LEVEL (2) (KX-9050S)	MTT-150 400Hz				Output level : ~1.2dBs	
[5]		MTT-256,TCC-1727 315Hz	(B)	PLAY	VR 5 (L) VR 6 (R) (X26-129 A/2)	Output level : -4.0dBs	
		MTT-256U,TCC-160 315Hz			( == ·== · , = ,	Output level : 0 dBs	
[6]	PLAY TRIM CONTROL	MTT-114 TCC-153,TCC-1727 -10dB, 10kHz	(B)	PLAY	VR 3 (L) VR 4 (R) (X26-129 A/2)	Adjust the variable resistors so that the level of 10kHz is -10 dBs	
[7]	BIAS CRRENT	(A) 1kHz, -30dBs 10kHz, -30dBs	(B)	Adjust REC VR (LEVEL, BALANCE) so that the REC monitor output becomes -24dBs at 1 kHz, then record and reproduce signal of 1 kHz and 10kHz in alternation.	VR 31 (L) VR 32 (R) (X26-129 B/2)	Adjust the bias current adjusting VR so that the playback level of the 10kHz signal is +0.5dB higher than that of the 1kHz signal when recording a 1kHz signal and a 10kHz signal alternately.	
[8]	RECORD LEVEL	(A) 1kHz, -30dBs	(B)	Record and reproduce a 1kHz signal under the conditions set in <7>	VR 21 (L) VR 22 (R) (X26-129 B/2)	Adjust the variable resistors so that a playback level of -24dBs is obtained.	
[9]	FL PEAK LEVEL METER	(A) 1kHz, -10dBs		REC PAUSE Adjust REC VR (LEVEL.BALANCE) so that the monitor output is -4dBs at 1kHz.	VR 95(R) (X25-471 A/8)	Adjust to the same level as that to L-channel.	

Note: On item (4) &(5).

Although 3 kinds of tapes are set forth for the playback level adjustment, the use of one tape suffices for adjustment. Here is meant no necessity for the use of sll these 3 kinds of tapes. Other than above mentioned tapes, when a test tape equal in magnetic flux and frequency is available, the adjustment is feasible with this test tape by making the playback output suited to the specified output level of this tape in agreement with the adjustment method.

# **ADJUSTMENT**

### **MECHANISM**

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	CASSETTE TAPE DECK SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
CAS	SSETTE DECK SECTION	TAPE: NORMAL, [	OOLBY: OFF, INPU	T: LINE		0dBs=0	.775V
F	REC/PLAY HEAD				•		
[1]	DEMAGNETIZATION	_	-	POWER : OFF Remove the cassette door.	REC/PLAY head	Demagnetige the REC/PLAY head with a head demagnetizer.	
[2]	CLEANING	_	-	_	REC/PLAY head erase head capstan. pinch roller.	Clean the REC/PLAY head erase head, capstan and pinch roller, using a cotton swab slightly damped with alcohol.	
[3]	Verification of the rec/play head. (KX-9050S)	* MTT-94201	_	PLAY	_	Check that the level difference between the left and right channels is within 4 dB.  If the difference exceeds 4 dB, perform the adjustments descrived in (7).	
[4]	Azimuth	MTT-114 TCC-153 SCC-1727 10kHz, -10dB	<del>-</del>	PLAY	Aimuth adjustment screw	Adjust the output to the maximum, then set the azimuth screw so that the oscilloscope resurge wavelength approaches a 45 deg. linearity.	
[5]	Check with mirror tape	mirror tape	_	PLAY	_	Play back the mirror tape and check that the edges of the tape do not touch the tape guide.  If they do, perform the adjustments descrived in (7) onward.	
[6]	TAPE SPEED	(A) MTT-111 TCC-110 , SCC-1727 3kHz, -4dB		PLAY	Trimming potentiometer in the DC motor	Adjust the tape speed so that a 3kHz signal is produced at the center of the tape.	
[7]	Height of supply pinch arm	THG-801	_	PLAY	Supply pinch roller arm height adjustment screw	Mount the standard THG-801 plate on the cassete receiving plate, then turn the block gage sideways and adjust the screws so that the gage fits in the tape guide.	
[8]	Height of REC/PLAY head	THG-801	_	PLAY	Head height adjustment screw	Mount the standard THG-801 plate on the cassete receiving plate, then turn the block gage sideways and adjust the screws so that the gage fits in the tape guide.	

# **ADJUSTMENT**

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	CASSETTE TAPE DECK SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
CA	ASSETTE DECK SECTION	TAPE : NORMAL,	DOLBY : OFF, INPUT	: LINE		<b>0dBs=</b> 0.775∨	<i>'</i>
[9]	rec/play head adjustment	THG-801	_	PLAY	Head tilt adjustment screw	Turn the THG-801 · block gage sideways and position it so that it is perpendicular to the head surface. Adjust screw B so that the gage and standard plate come into close contact.	
	e head height can be altere			e (9),			
so	repeat adjustment procedu  DEMAGNETIZATION	re, (8) and (9) several	times.	POWER : OFF Remove the cassette	REC/PLAY head	Demagnetize the REC/PLAY head with a head demagnetizer.	
[10]	CLEANING	_	_	-	REC/PLAY head erase head, capstan, pinch roller.	Clean the REC/PLAY head erase head,capstan and pinch roller using a cotton swab slightly damped with alcohol.	
[11]	Azimuth	SCC-1727 MTT-111 TCC-110 3kHz, -4dB	_	PLAY	Azimuth adjustment screw	Adjust the output to maximum for the 3 kHz output then set the azimuth screw C so that the oscilloscope resurge wavelength approaches a 45 deg. linearity.	
Cł	neck the adjustments in proc	edures (8), (9) and (1	1).				
[12]	Check with mirror tape	mirror tape	-	PLAY	_	Playback the mirror tape and check that the tape edges are not touching the tape guide. If they are?, repeat procedures (8), (9) and (11) to adjust.	

Returne to procedure (3). (KX-9050S)

### **REGLAGE**

#### UNITE D'ENREGISTREMENT/LECTURE

N.	ITEM	REGLAGES DE L'ENTREE	REGLAGES DE LA SORTIE	REGLAGES DU MAGNETOPHONE A CASSETTE	POINTS DE L'ALIGNEMENT	ALIGNER POUR	<b>+10</b>	
SECT	TION MAGNETOPHON	NE A CASSETTE	BANDE : NOMAL, DOLBY	: OFF, INPUT : LINE		0 dBs=0,775	٧	
[1]	FREQUENCEN OSCILLANTE DE POLARISATION	charger les bandes non enregistrées dans la platine	Connecter le fréquencemètre entre TP5 et GND ou TP6 et GND.	REC	L33 (X26-129 B/2)	Ajuster de sorte que le frequencemètre indique 210 kHz.		
(2)	FUITE DE POLARISATION	charger une bande non enregistrée dans la platine	Connecter le voltmètre de CCentre TP5 et TP6.	charger une bande Metal	L23 (G) L24 (D) (X26-129 B/2)	Minimum		
[3]	HX VCA	charger une bande non enregistrée dans la platine	Connecter un oscilloscope entre TP3 et TP4	REC	L31 (G) L32 (D) (X26-129 B/2)	Minimum		
		MTT-150 400Hz (200 nwb)	(B)	(DOLBY OFF : 9050)	VR 1 (G)	Niveau de sortie : -1,2 dBs		
[4]	NIVEAU DE LECTURE (1)	MTT-256,SCC-1727 315 Hz (160 nwb)		(DOLBY OFF : 9050) (DOLBY S : 9050S) PLAY	VR 2 (D) (X26-129 A/2)	Niveau de sortie : -4,0 dBs		
		MTT-256U, TCC-160 315 Hz (250 nwb)				Niveau de sortie : 0 dBs	<u> </u> 	
[5]	NIVEAU DE 5] LECTURE (2) (KX-9050S)	NIVEAU DE MTT-256 315 Hz LECTURE (2) SCC-1727	CTURE (2) SCC-1727 (B)	(B)	PLÄY	VR 5 (G) VR 6 (D)	Niveau de sortie : -1,2 dBs  Niveau de sortie : -4,0 dBs	
		MTT-256, TCC-160 315 Hz			(X26-129 <b>A/</b> 2)	Niveau de sortie : 0 dBs		
[6]	CONTROLE D'EQUILIBRE DE LECTURE	MTT-114,SCC-1727 TCC-153 -10 dB, 10kHz	(B)	PLAY	VR 3 (G) VR 4 (D) (X26-129 A/2)	Ajuster les résistances variables de sorte que le niveau 10 kHz soit -10 dBs		
[7]	COURANT DE POLARISATION	(A) 1 kHz, -30 dBs 10 kHz, -30 dBs	(B)	Ajuster la VR REC (LEVEL, BALANCE) pour que la sortie de contrôle REC deviennent -24 dBs à 1 kHz, puis enregistrer et reproduire un signal de 1 kHz et 10kHz alternativement.	VR 31 (G) VR 32 (D) (X26-129 B/2)	Ajuster le courant de polaristion en ajustant VR de sorte qur le niveau de lecture soit +0,5 dB plus haut que celui 10 kHz lors de l'enregistrement alternativement d'un signal de 1 kHz et d'un signal de 10 kHz.		
[8]	NIVEAU D'ENREGISTRE- MENT	(A) 1 kHz, -30 dBs	(B)	Enregistrer et reproduire un signal de 1 kHz dans les conditions établies en < 7 >	VR 21 (G) VR 22 (D) (X26-129 B/2)	Ajuster les résistances variables de sorte le niveau de lecture de -24 dBs soit obtenu.		
[9]	INDICATEUR DE NIVEAU DE CRETE FL	(A) 1 kHz, -10 dBs	_	REC PAUSE Ajuster la VR REC (LEVEL, BALANCE) pour que la sortie de contrôle soit -4dBs à 1 kHz.	VR 95(D) (X25-471 A/8)	Ajuster au même niveau que celui du cana! G		

REMARQUE: Sur les items (4) et (5)

Bien que 3 sortes de bande soient employées pour l'ajustement du niveau de lecture, l'utilisation d'une bande suffit pour l'ajustement. Cela signifie qu'il n'est pas nécessaire d'utiliser les 3 types de bande. En plus des bandes citées ci-dessus, quand une bande test de flux magnétique et frequence egaux est disponible, l'ajustement est possible en réglant la sortie de lecture sur le niveau de sortie specifique à cette bande, selon la methode d'ajustement.

# **REGLAGE**

#### MECHANISM

N.	ITEM	REGLAGES DE L'EHTREE	REGLAGES DE LA SORTIE	REGLAGES DU MAGNETOPHONE A CASSETTE	POINTS DE L'ALIGNEMENT	ALIGNER POUR	FIG.
	SECTION MAGNETOPHO	ONE A CASSETTE	BANDE : NORMAL, D	OLBY: OFF, INPUT: LI	NE	0dBz=0,775	V
	TETE D'ENREGISTREI	MENT/LECTURE					
[1]	DEMAGNETISATION	_	_	ALIMENTATION : COUPEE Retirer la porte de cassette.	Tête d'enregistrement/ lecture	Démagnétiser la îete d'enregistrement/lecture avec l'effaceur de tête.	
[2]	NETTOYAGE	<u>-</u>	_	-	Tête d'enregistre- ment/lecture, tête d'effacement, cabestan, galet presseur	Nettoyer la tête d'enregistrement/lecture, la tête d'effacement, le cabestan et le galet presseur avec un coton-tige legerement trempe dans de l'alcool.	
[3]	Vérification de la tête d'enre- gistrement/lecture (KX-9050S)	<b>₩ MT</b> T-94201		PLAY	_	Vérifier que la difference de niveau entre les canaux droits et gauche soit inférieure à 4 dB. si la différence dépasse 4 dB,effectuer les ajustements décrits en (7).	
[4]	Azimut	SCC-1727 MTT-114 TCC-153 10kHz,-10dB		PLAY	Vis d'ajustement de l'azimut C	Ajuster la sortie du maximum, puis régler la vis d'azimut de sorte que la longueur d'onde sur l'oscilloscope approche d'une linéarité de 45 deg.	
[5]	Vérifier avec une bande miroir	Bande miroir	_	PLAY		Reproduire la bande miroir et vérifier que les rebords de bande ne touchent pas le quide de bande.  En cas de contact, effectuer les ajustements décrits en (7) plus loin.	
[6]	Verifier avec une bande miroir	Bande miroir		PLAY	Potentiomètre d'équilibrage dans le moteur CC	Ajuster la vitesse de la bande pour qu'un signal de 3kHz soit produit au centre de la bande.	
[7]	VITESSE DE LA BANDE	(A) SCC-1727 MTT-111, TCC-110 3kHz, -4dB	-	PLAY	Vis de reglage de hauteur de bras de galet presseur d'alimentation	Monter la plaque THG-80 1 standard sur la plaque de réception de cassette, puis tourner le calibre latéralement et ajuster les vis de sorte que le calibre correspond au guide de bande.	
[8]	Hauteur de îete d'entraînement/ lecture	THG-801	-	PLAY	Vis d'ajustement de hauteur de tête A	Monter la plaque THG-801 standard sur la plaque de réception de cassette, puis- tourner le calibre latéralement et ajuster les vis de sorte que le calibre correspond au guide de bande.	

# **REGLAGE**

N.	ITEM	REGLAGES DE L'ENTREE	REGLAGES DE LA SORTIE	REGLAGES DU MAGNETOPHONE A CASSETTE	POINTS DE L'ALIGNEMENT	ALIGNER POUR	FIG.
SEC	TION MAGNETOPHONE	A CASSETTE I	BANDE : NORMAL, DOLB	IY : OFF, INPUT : LINE	7	0dBz=0,775	V
[9]	Réglage de la tête d'enregistrement/ lecture	THG-801	_	PLAY	Vis d'ajustement d'inclinaison de tète B	de tête. Ajuster la vis B de sorte que la plaque standard d'extré- mité de calibre arrive en contact.	
	La hauteur de tête peut d	ètre modifíee en effecti	uant l'ajustement dans la	procédure (9), donc répé	ter plusieurs fois les	procedures de reglage (8) et (9).	
	DEMAGNETISATION	_	_	ALIMENTATION : COUPEE	Tête d'enregistrement/ lecture	Démagnétiser la tête d'enregistrement/lecture avec un effaceur de tête.	
[10]	NETTOYAGE	-		_	Tete d'enregistrement /lecture, tête d'effacement, cabestan, galet pressur	Nettoyer la fête d'enregistrement/lecture, la fête d'effacement, le cabestan et le galet presseur avec un coton-tige légèrement trempé dans de l'alcool.	
[11]	Azimut	SCC-1727 MTT-111 TCC-110 3 kHz,-4dB	_	PLAY	Vis d'ajustement de l'azimut ©	Ajuster la sortie au maximum pour la sortie de 3 kHz, puis régler la vis d'azimut © de sorte que la longueur d'onde sur l'osoilloscope approche d'une linéarité de 45 deg.	
,	Vérifier les réglages dans	s les procédures (8), (9	l) et (11).			L	
[12]	Vérifier avec une bande miroir	Bande miroir	-	PLAY		Reproduire la bande miroir et vérifier que les rebords de la bande ne touchent pas le guide de bande. En cas de contact, répéter les procédures (8), (9) et (11) pour effectuer lé reglage.	

Retourner à la procédure (3) . (KX-9050/S)

### **ABGLEICH**

#### AUFNAHME-/WIEDERGABETEIL

Nr.	GEGENSTAND	EINGANGSEIN- STELLUNG	AUSGANGSEIN- STELLUNG	CASSETTENDEC- KEINSTELLUNG	ABGLEICH PUNKTE	ABGLEICHEN FUR	ABB.
TA	PE: NORMAL, DOLB		LINE			0dBs=0,7	75V
[1]	VORMAGNET- ISIERUNGSOSZILLA- TORFREQUENZ	Nicht bespielte Bader in das Deck einlegen	Den Frequenzmesser zwischen TP5 und GND oder TP6 und GND schlieβ en	REC	L33 (X26-129 B/2)	So einstellen, daß der Frequenz messer 210 kHz anzeigt.	
[2]	VORMAGNET- ISIERUNGS- STROMVERLUST	Ein nicht bespieltes Band in das Deck einlegen	Wechselspannungsme- ter zwischen TP5 und TP6 schließen.	Ein Metallband einlegen.	L 23 (L) L 24 (R) (X26-129 B/2)	Minimal	
[3]	HX VCA	II .	Oszilloskop zwischen TP3 und TP4 schlien	REC	L 31 (L) L 32 (R) (X26-129 B/2)	Minimal	
		MTT-150 400Hz (200nWb)		(DOLBY OFF : 9050)	VR 1 (L)	Ausgangspegel:-1.2dBs	
[4]	WIEDERGA- BEPEGEL (1)	MTT-256,SCC-1727 315Hz (160nWb)	(B)	(DOLBY OFF: 9050S) (DOLBY S: 9050S) PLAY	VR 2 (R) (X26-129 A/2)	Ausgangspegel: -4.0dBs	
	(,,	MTT-256,TCC-160 315Hz (250nWb)				Ausgangspegel: 0 dBs	
	WIEDERGA-	NTT 050 000 1707			VR 5 (L) VR 6 (R) (X26-129 A/2)	Ausgangspegel : -1.2dBs	
[5]	BEPEGEL (2) (KX-9050/S)	MTT-256,SCC-1727 315Hz	(B)	PLAY		Ausgangspegel: -4.0dBs	
	(KX-9050/5)	MTT-256,TCC-160 315Hz				Ausgangspegel: 0 dBs	
[6]	WIEDERGABE- TRIMMER	MTT-114 TCC-153,SCC-1727 -10dB, 10kHz	(B)	PLAY	VR 3 (L) VR 4 (R) (X26-129 A/2)	Die Stellwiderstäde so ein- stellen, da ß der 10-kHz- Pegel -10 dBs berägt	
[7]	VORMAGNETISI- ERUNGSSTROM	(A) 1kHz, -30dBs 10kHz, -30dBs	(B)	REC VR (LEVEL, BALANCE) so einstellen, da β der REC-Monitor- Ausgang bei 1 kHz -24 dBs wird, dann ab- wechselnd ein Signal mit 1 kHz und 10 kHz aufzeichnen und wiedergeben.	VR 31 (L) VR 32 (R) (X26-129 B/2)	Den Vormagnetisierungsstrom- Stellwiderstand so einstellen, da ß der Wiedergabepegel des 10-kHz-Signals +0,5 dB höer als der des 1-kHz-Signals ist, wenn abwechselnd ein 1-kHz- Signal und ein 10-kHz-Signal aufgezeichnet wird.	
[8]	AUFNAHMEPEGEL	(A) 1kHz, -30dBs		Unter den in <7> eingestellten Bedingungen ein 1-kHz- Signal aufzeichnen und wiedergeben	VR 21 (L) VR 22 (R) (X26-129 B/2)	Die Stellwiderstäde so einstellen, daß ein Wiederga- bepegel von -24 dBs erhalten wird.	
[9]	FL-SPITZEN- PEGELMETER	(A) 1kHz, -10dBs	_	REC PAUSE REC VR (LEVEL, BALANCE) so einstellen, daß der Mo- nitorausgang bei 1 kHz - 4 dBs beträgt.	VR 95(R) (X25-471 A/8)	Auf denselben Pegel wie den des linken Kanals einstellen	

Hinweis: Bei Punkt (4) und (5).

Obwohl 3 Bandsorten für die Wiedergabepegeleinstellung vorliegen, genüt der Gebrauch eines Bands zur Einstellung. Dies bedeutet , das nicht alle 3 Bandsorten verwendet werden müssen. Die Einstellung kann auch mit einem Testband mit demselben Magnetfluß und derselben Frequenz der oben erwahnten Bander durchgefürt werden, indem der Wiedergabeausgang dem Sollausgangspegel dieses Bands gemaß Einstellverfahren angeglichen wird.

### **ABGLEICH**

### LAUFWERK

Nr.	GEGENSTAND	EINGANGSEIN- STELLUNG	AUSGANGSEI- NSTELLUNG	CASSETTENDEC KEINSTELLUNG	- ABGLEICH PUNKTE	ABGLEICHEN FUR	ABB.
CA	ASSETTENDECK-TEI	L TAPE: NORM	MAL , DOLBY: O	FF, INPUT: LINE		0  dBs = 0.7	775 V
	AUFAHME/WIEDER	RGABEKOPF					
[1]	ENTMAGNETISI- ERUNG	_	_	POWER :OFF Die Cassettenklappe entfernen.	Aufnahme/Wie- dergabekopf (REC/PLAY)	Den REC/PLAY-Kopf mit einem Tonkopf-Entmagnetisierer entmagnetisieren.	
[2]	REINIGUNG	_	_		REC/PLAY-Kopf, Löschkopf, Tonwelle, Andruckrolle.	REC/PLAY-Kopf, Löschkopf, Tonwelle und Andruckrolle mit einem leicht mit Alkohol angefeuchteten Wattestäbchen reinigen.	
[3]	Kontrolle des Aufnahme/Wieder- gabekopfs. (KX-9050S)	<b>M</b> TT-94201		PLAY	-	Sicherstellen, daß der Pegelunterschied zwischen dem linken und rechten Kanal innerhalb von 4 dB liegt. Wenn der Unterschied 4 dB überschreitet, die in (7) beschriebenen Einstellungen vornehmen.	
[4]	Azimut	MTT-114 TCC-153,SCC-1727 10kHz, -10dB	_	PLAY	Azimut-Ein- stellschraube ©	Den Ausgang auf den Höchstwert einstellen, dann die Azimut- Schraube so justieren, da ß sich die Oszilloskop-Wiederanst- iegswellenläge einer Linearität von 45 Grad annähert.	
[5]	Mit Spiegelband überprüren	Spiegelband	-	PLAY	_	Das Spiegelband abspielen und sicherstellen, da β die Bandkanten die Bandfürung nicht berüren. Wenn sie die Bandfürung berüren, die ab (7) beschriebenen Einstellungen durchfuren.	
[6]	BANDGES- CHWINDIGKEIT	(A) SCC-1727 MTT-111, TCC-110 3kHz,-4dB	_	PLAY	Trimm-Potenti- ometer im Gleich- strommotor	Die Bandgeschwindigkeit so ein-	
[7]	Höhe des Zuführan druckrollenarms	THG-801	-	FLAY	Zufürandruckrol- lenarm- Höhenein- stellschraube D	Die Standard-THG-801-Platte an der Cassettenempfangsplatte montieren, dann die Blocklehre seitw a ts drehen und die Schrauben so einstellen, da β die Lehre in die Bandfurung pa β.	
[8]	Höhe des REC/ PLAY-Kopfes	THG-801		PLAY	Kopfhöhenein- stellsohraube	Die Standard-THG-801-Platte an der Cassettenempfangsplatte montieren, dann die Blocklehre seitw в ts drehen und die Schrauben so einstellen, da β die Lehre in die Bandfurung pa β	

### **ABGLEICH**

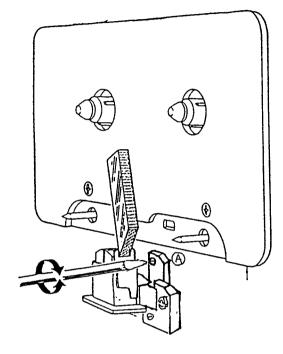
Nr.	GEGENSTAND	EINGANGS- EINSTELLUNG	AUSGANGS- EINSTELLUNG	CASSETTENDECK- EINSTELLUNG	ABGLEICH- PUNKTE	ABGLEICHEN FÜR AE
CAS	SSETTENDECK-TEIL	TAPE: NORM	AL, DOLBY: OF	F, INPUT: LINE		0 dBs = 0,775 V
[9]	Aufnahme/Wie- dergabekopf-Ein- stellung	THG-801	_	PLAY	POWER: OFF Das Cas- settenklappe entfernen. B	Die THG-801-Blocklehre seitwärts drehen und so positionieren, daß sie senkrecht zur Kopfoberfläche ist. Die Schraube B so einstellen, daß Lehre und Standard- Platte miteinander in enge Beuhrung gelangen.
Die hole	•	h Einstellverfahre	n (9) ge an dert	werden, daher Eins	stellverfahren (	(8) und (9) einige Male wieder-
	ENTMAGNETISI- ERUNG		_	POWER: OFF Die Cassetten- klappeentfernen.	Aufnahme/Wie- dergabekopf (REC/PLAY)	Den REC/PLAY-Kopf mit einem Tonkopf-Entmagnetisierer entmagnetisieren.
[10]	REINIGUNG	_	_	_	REC/PLAY-Kopf, Löschkopf, Tonwelle, Andruckrolle.	REC/PLAY-Kopf, Löschkopf, Tonwelle und Andruckrolle mit einem leicht mit Alkohol angefeu- chteten Wattestabchen reinigen.
[11]	Azimut	SCC-1727 MTT-111 TCC-110 3kHz, -4dB	_	PLAY	Azimut-Ein- stellschraube	Den Ausgang für den 3-kHz- Ausgang auf den Höchstwert einstellen, dann die Azimut- Schraube C so einstellen, daß sich die Oszilloskop-Wiederanst- iegswellenlänge einer Linearität von 45 Grad annähert.
Die	Einstellungen bei Ver	rfahren (8), (9) ur	nd (11) uberprufe	en.		
[12]	Mit Spiegelband überprüfen	Spiegelband	_	PLAY	_	Das Spiegelband abspielen und sicherstellen, da ß die Bandkanten die Bandführung nicht berühren. Wenn sie die Bandführung berühren, Verfahren (8), (9) und (11) zur Einstellung wiederholen.

Zu Verfahren (3) zuruckkehren. (KX-9050S)

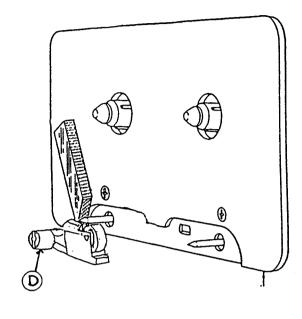
### **ADJUST MENT**

### Adjusting REC/PLAY head

Head height adjustment



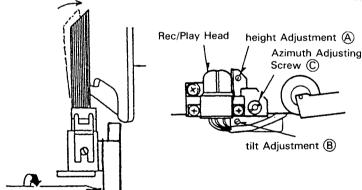
Suppry PINCH roller height Adjustment.

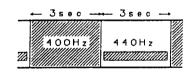


### Head tilt adjustment

Tape Speed Adjustment

\* MTT-94201 (TEST TAPE for HEAD height adjustment)

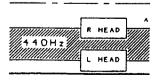


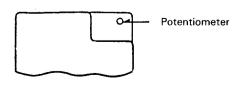


400 Hz Full track

440 Hz 0.8 mm width track

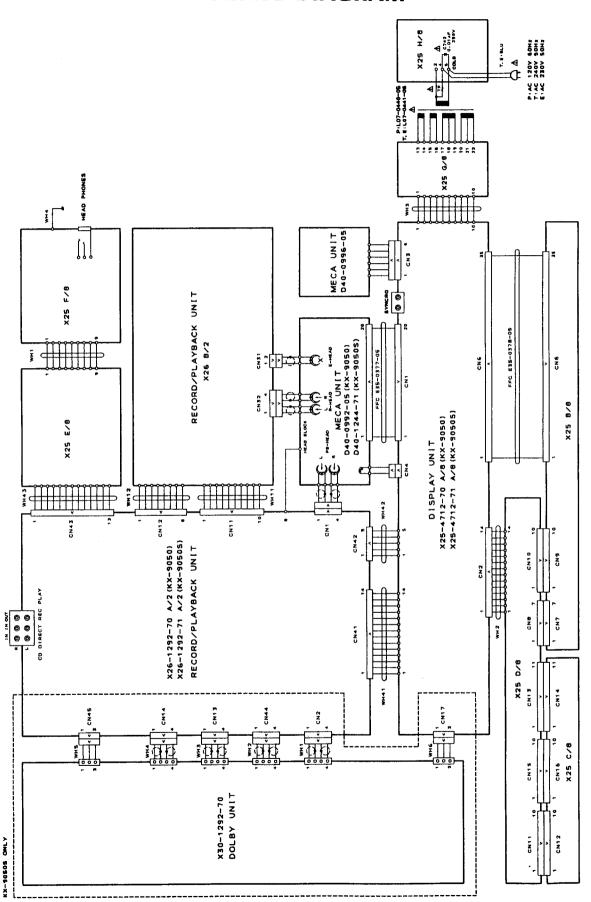
Level difference is about the same of L, R ch output when the adjustment is complate.



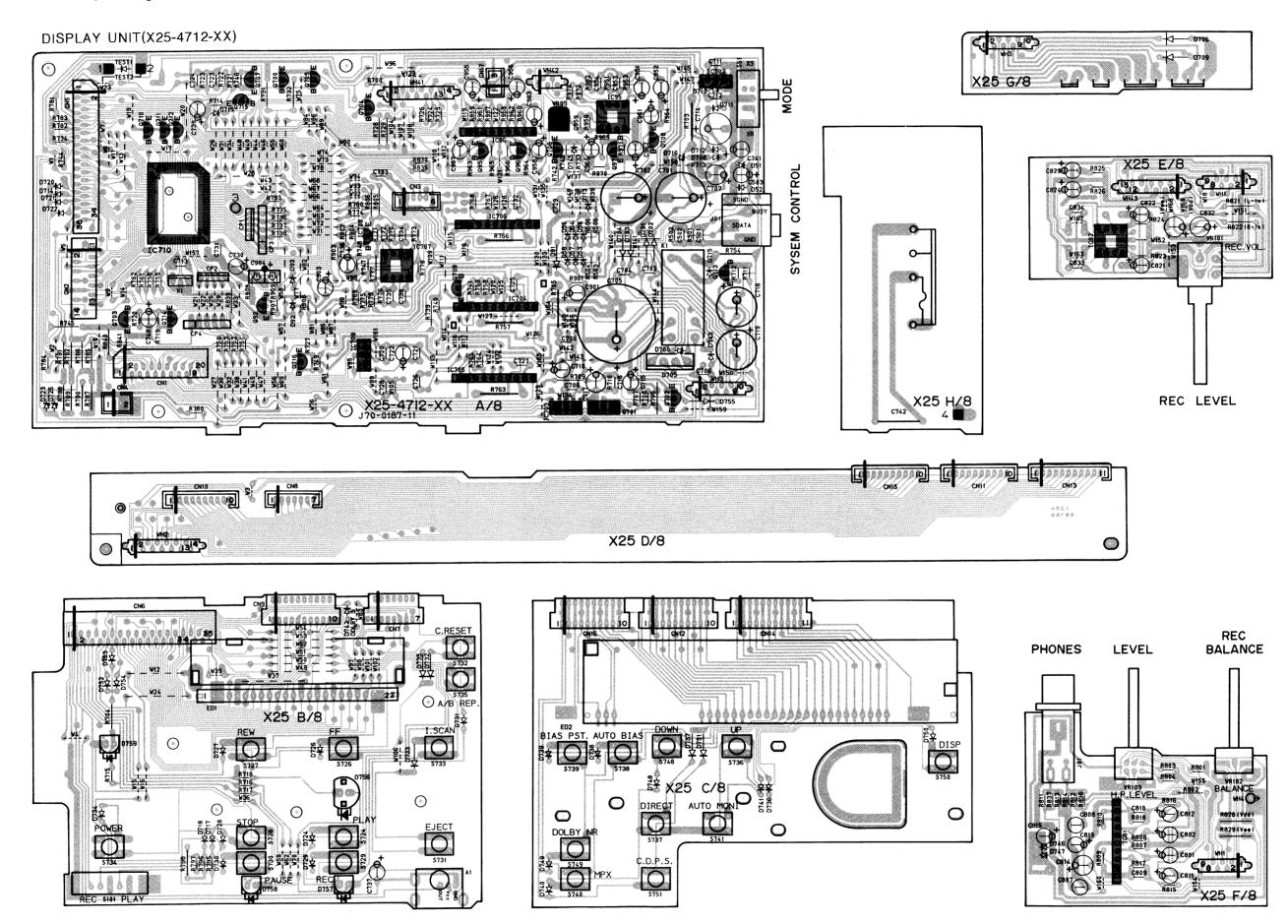


Capstan Motor

### **WIRING DIAGRAM**

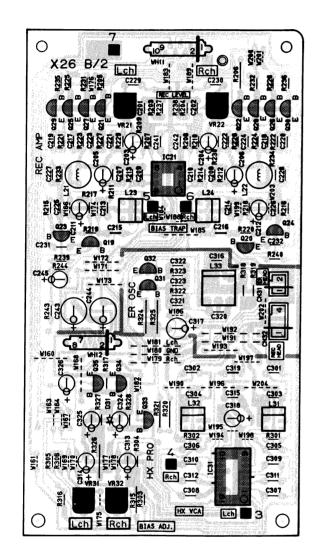


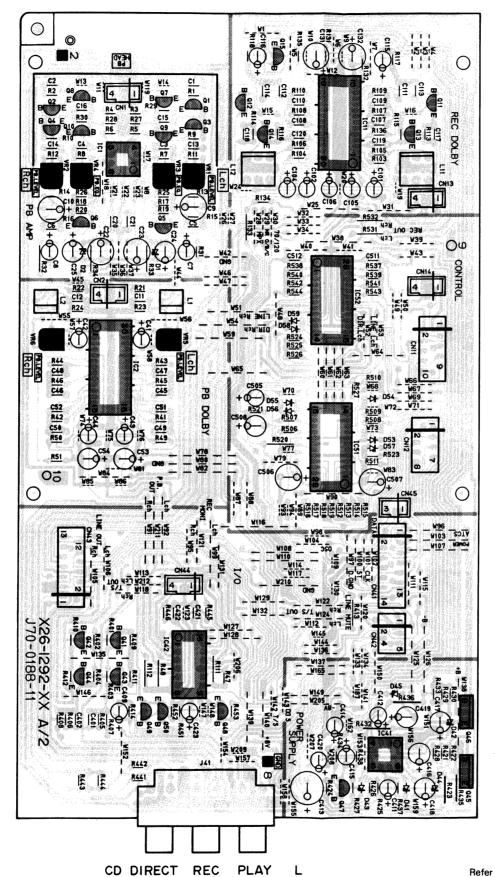
### PC BOARD (Component side view)



### PC BOARD (Component side view)

RECORD/PLAYBACK UNIT(X26-1292-XX)
DOLBY UNIT(X30-1292-70) KX-9050S only

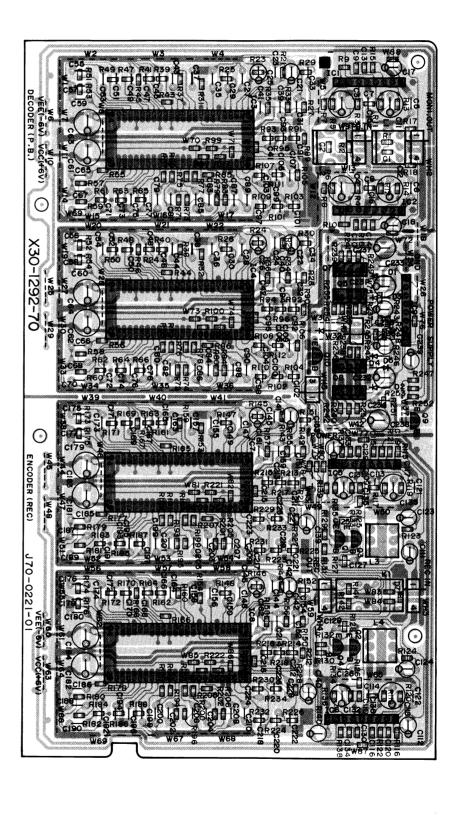




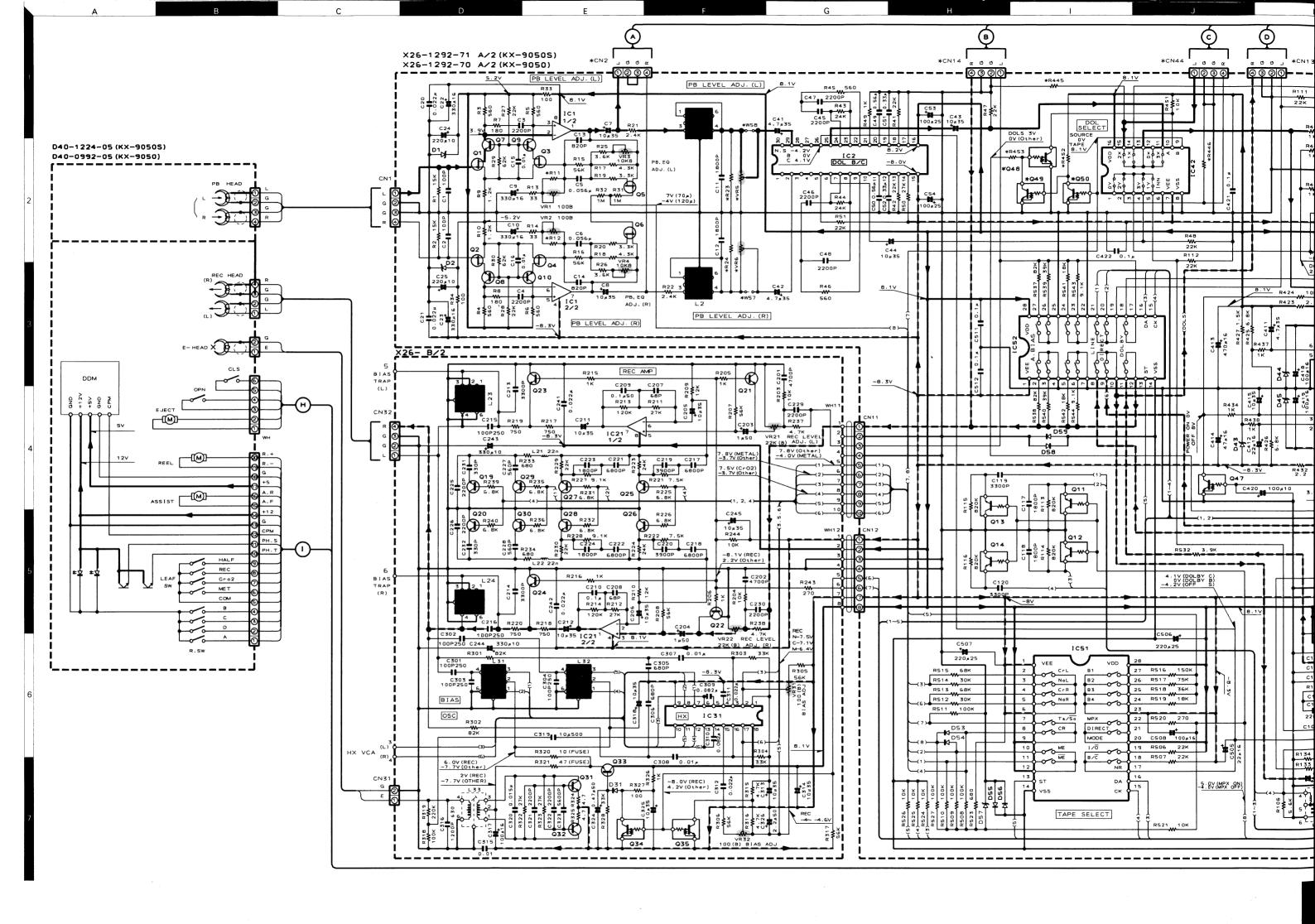
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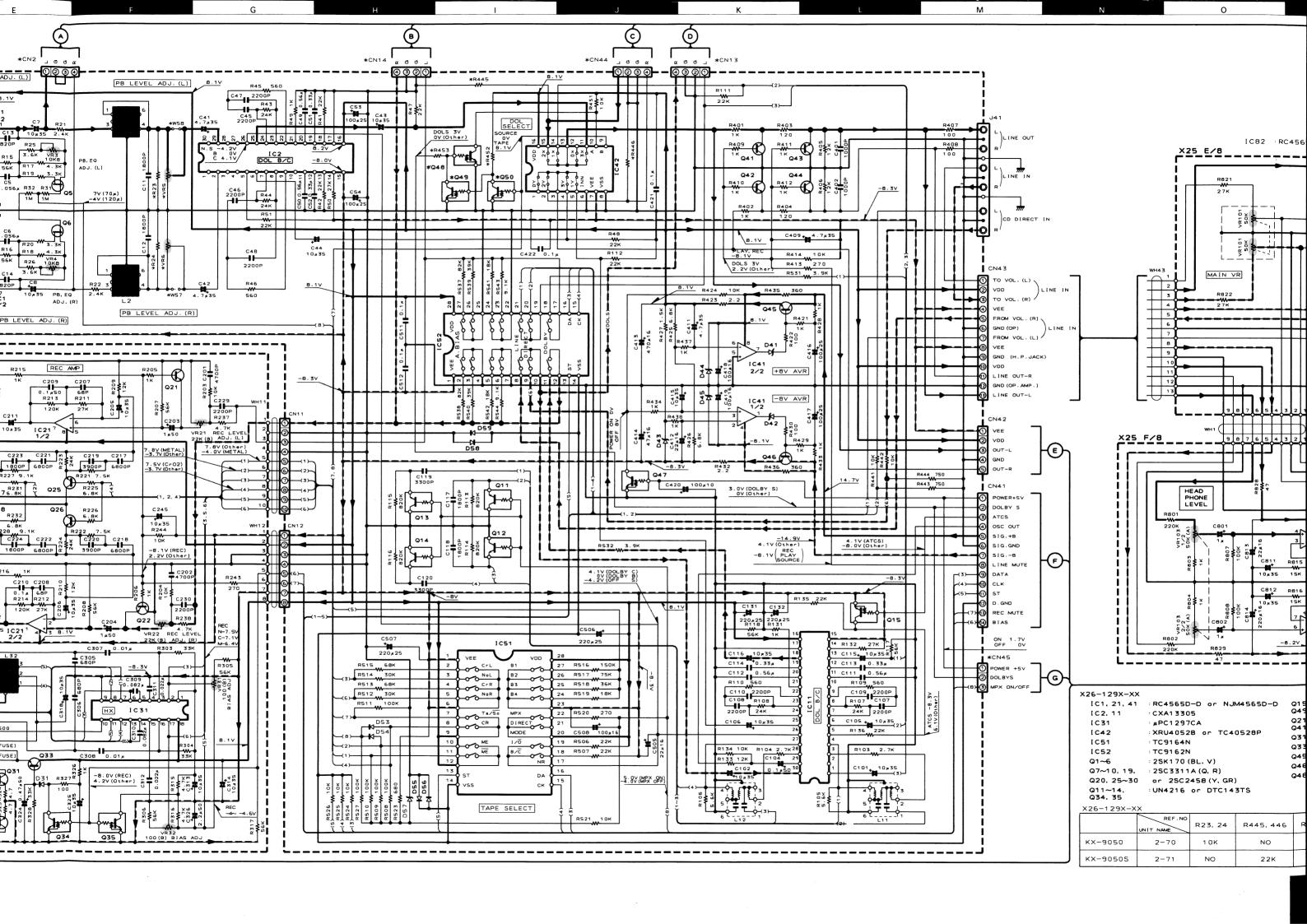
l N

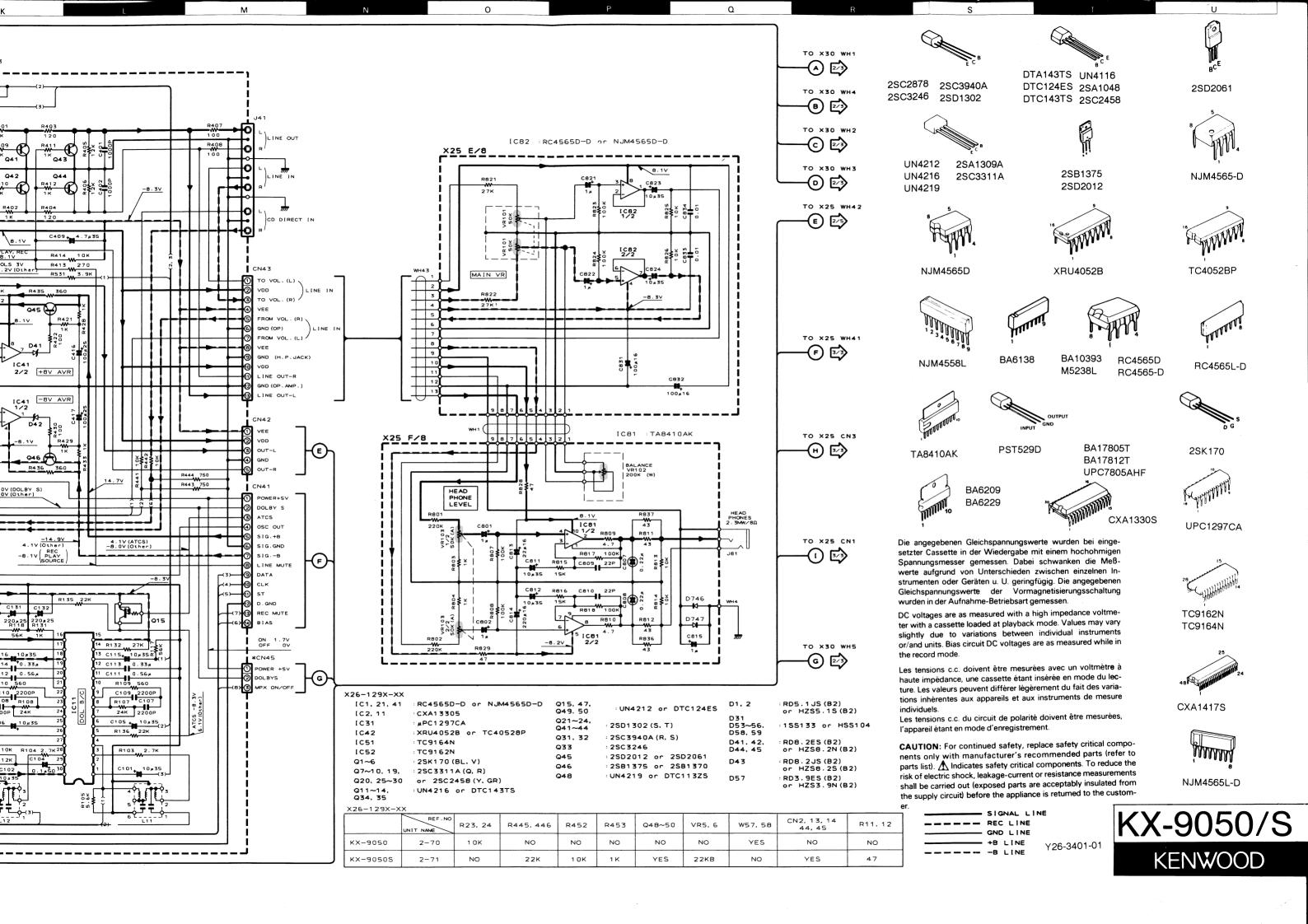
OUT

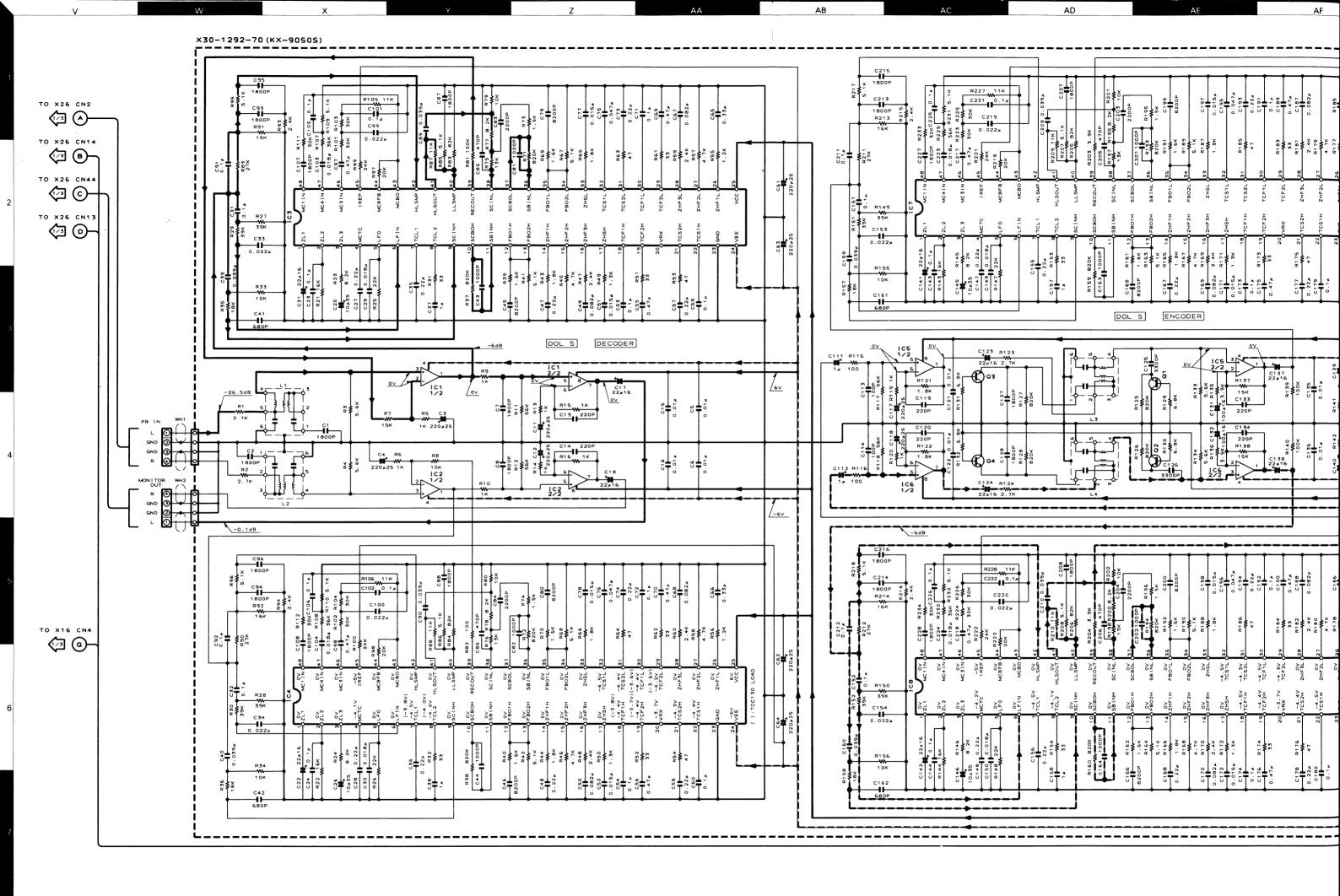


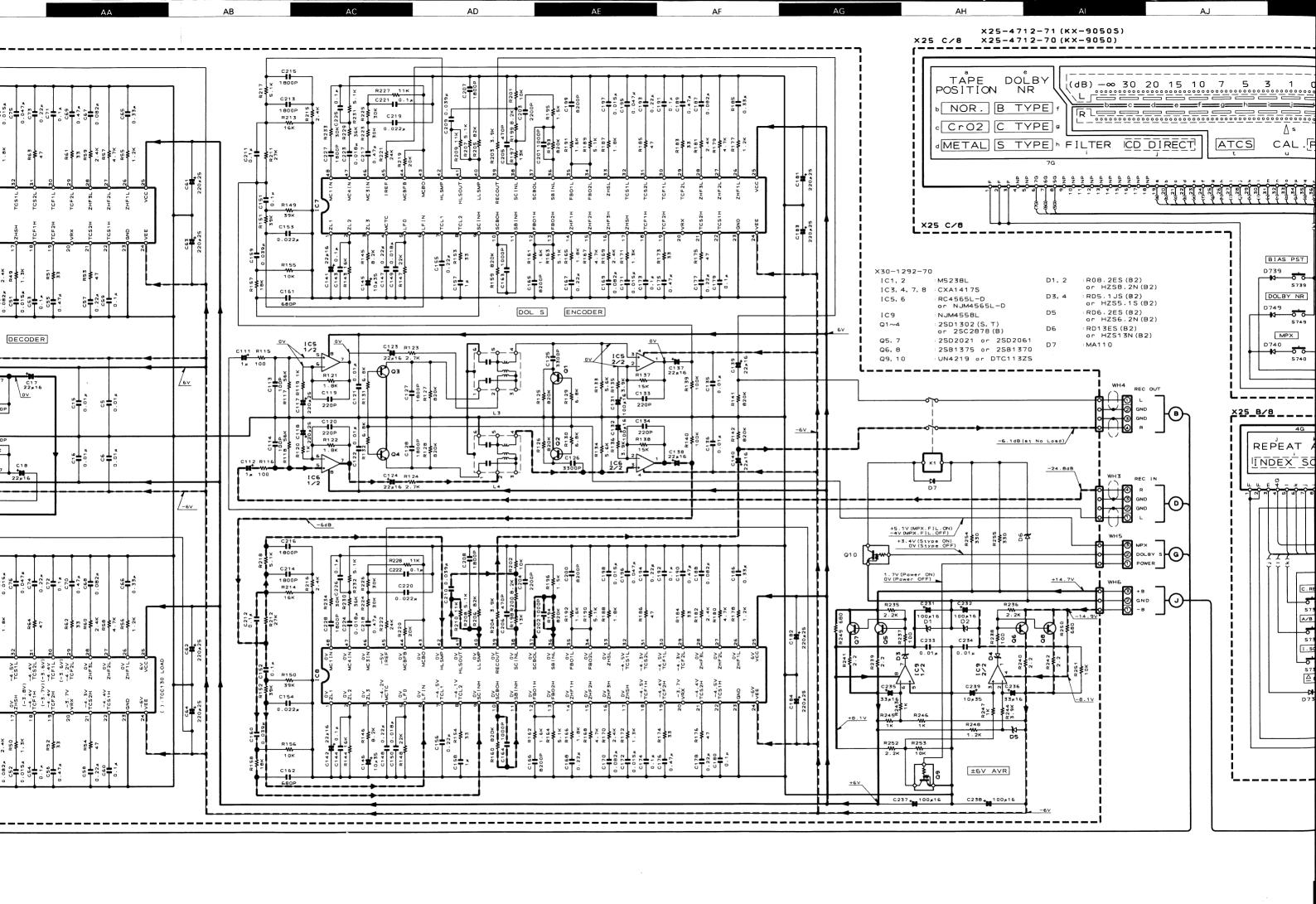
Refer to the schematic diagram for the values of resistors and capacitors.

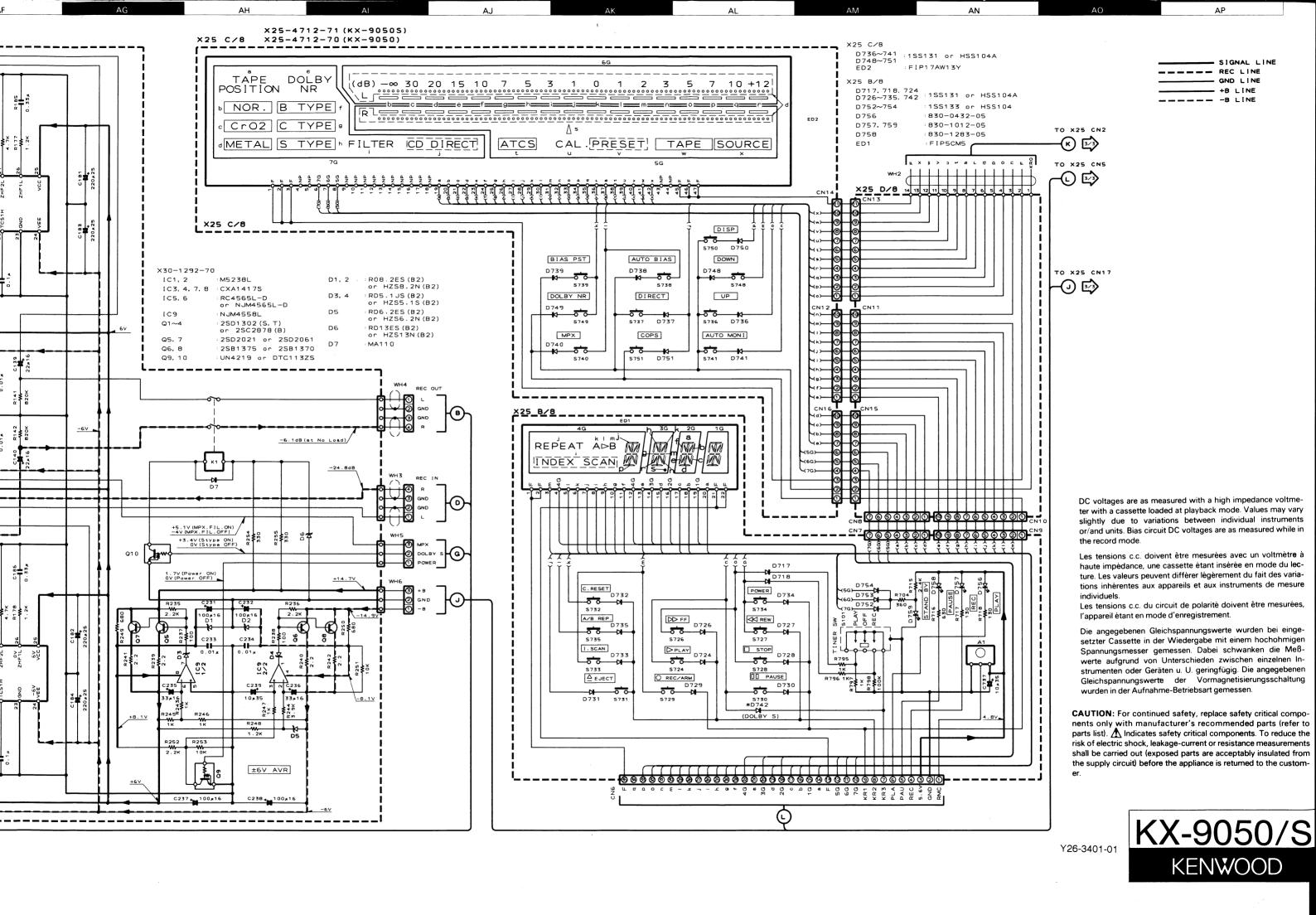


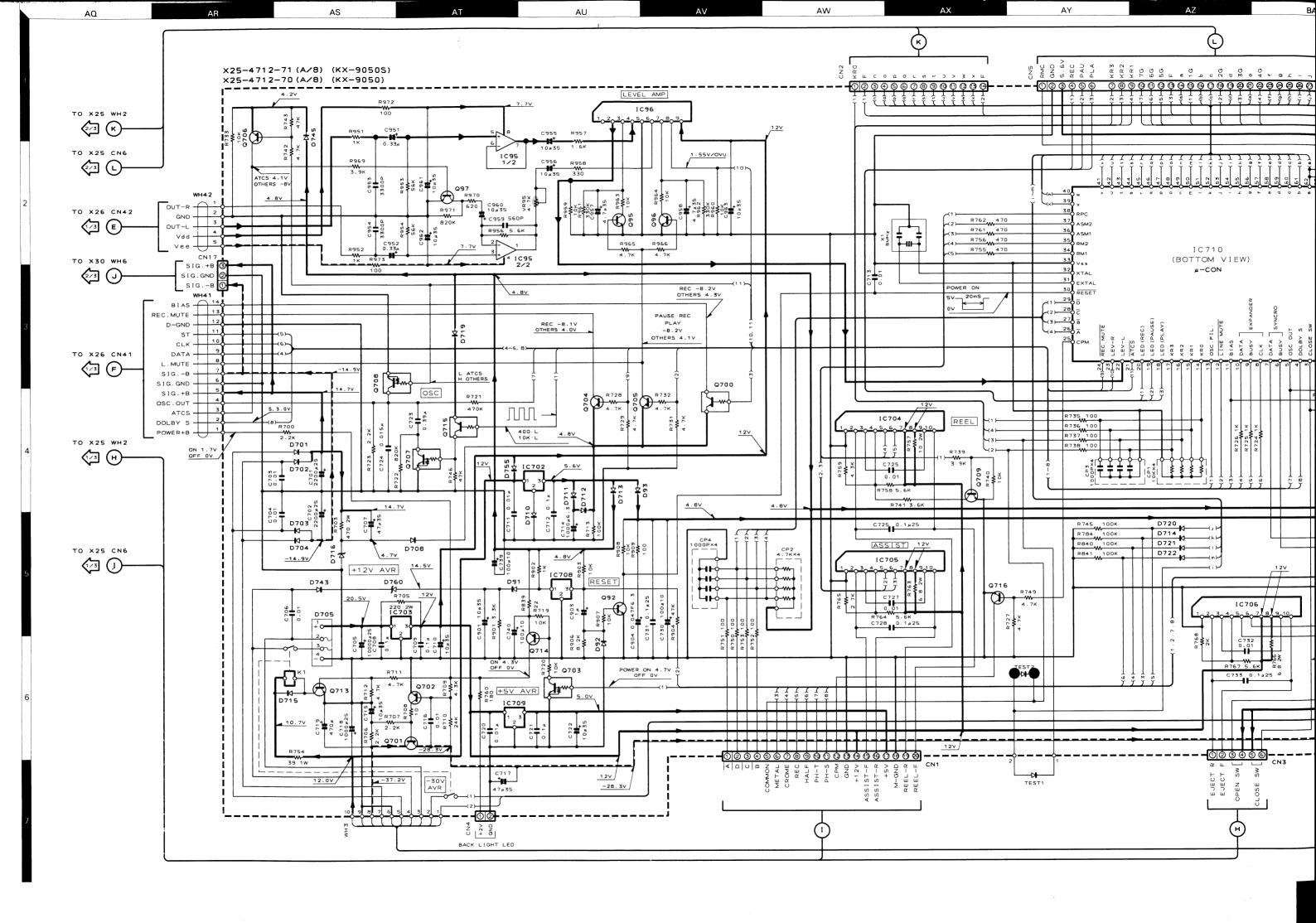


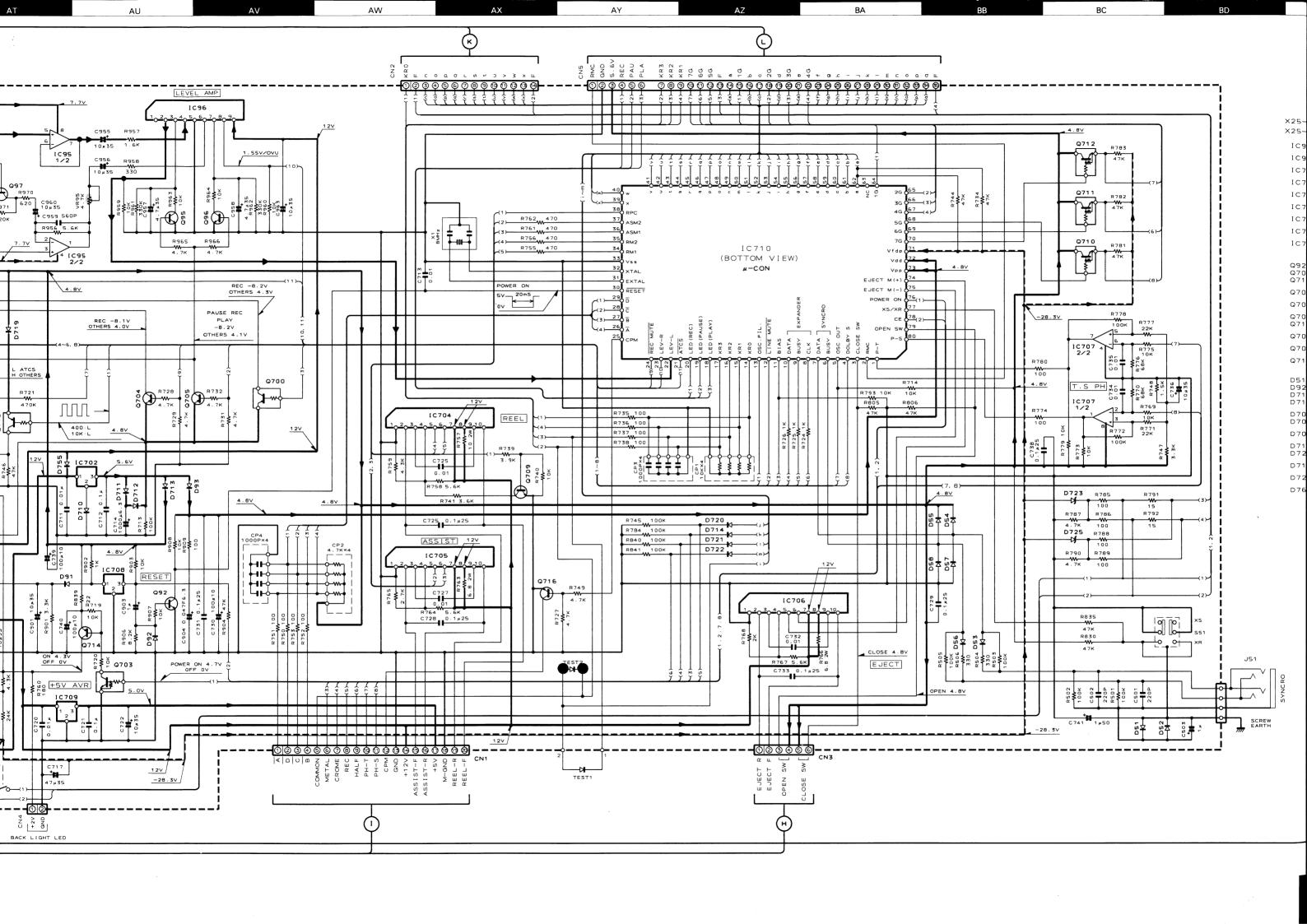


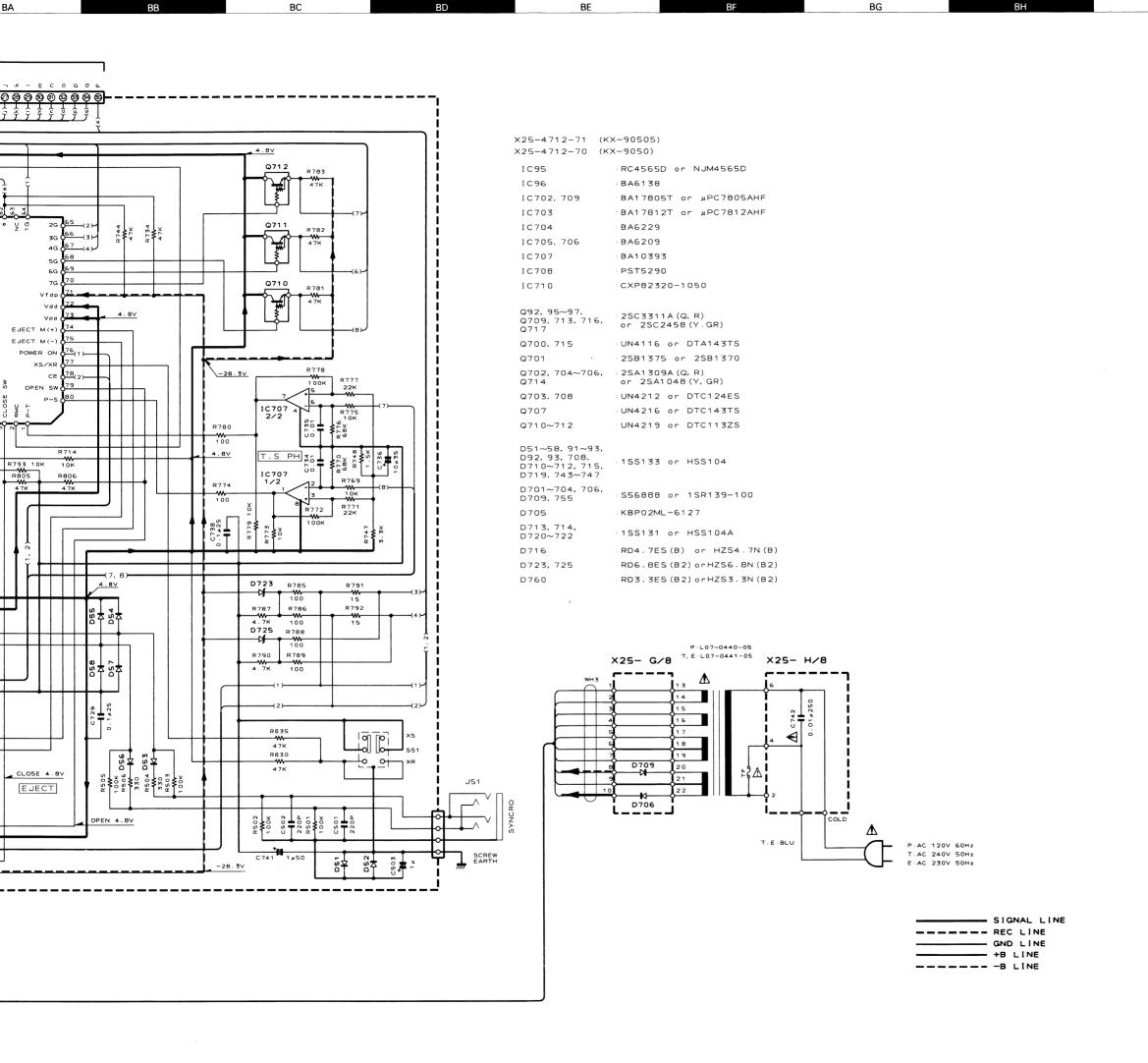












DC voltages are as measured with a high impedance voltmeter with a cassette loaded at playback mode. Values may vary slightly due to variations between individual instruments or/and units. Bias circuit DC voltages are as measured while in

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance, une cassette étant insérée en mode du lecture. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

Les tensions c.c. du circuit de polarité doivent être mesurées, l'appareil étant en mode d'enregistrement.

Die angegebenen Gleichspannungswerte wurden bei eingesetzter Cassette in der Wiedergabe mit einem hochohmigen Spannungsmesser gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig. Die angegebenen Gleichspannungswerte der Vormagnetisierungsschaltung wurden in der Aufnahme-Betriebsart gemessen.

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). A Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the custom-

Y26-3401-01

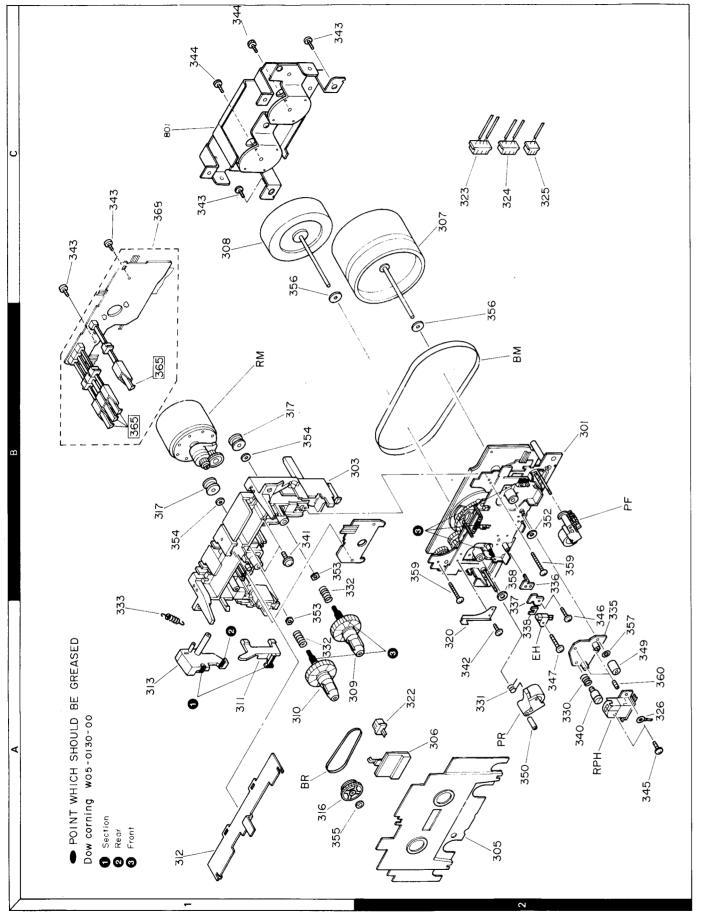


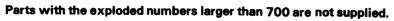
# KX-9050/S KX-9050/S

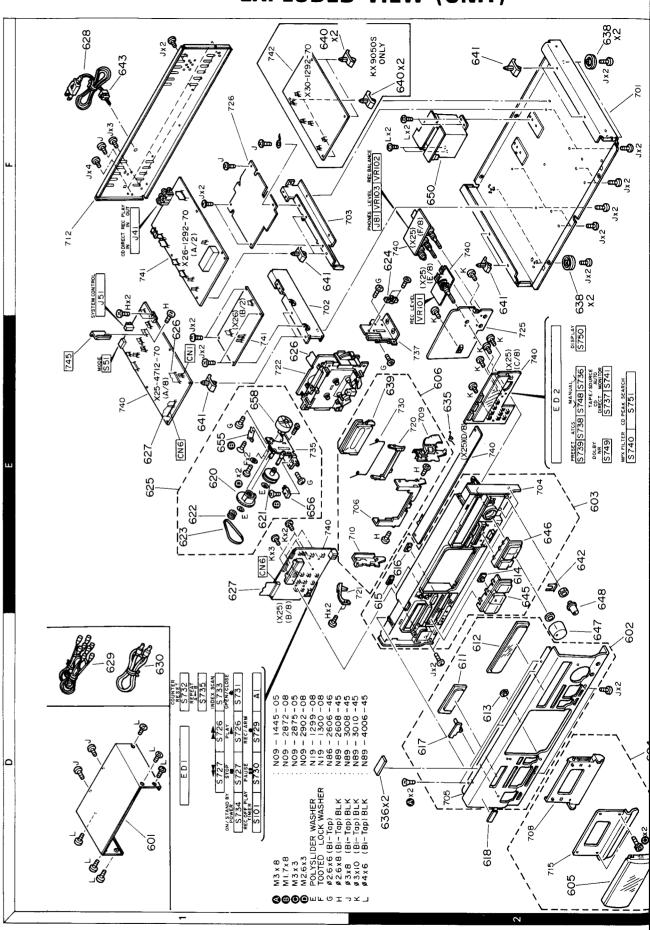
58

### **EXPLODED VIEW (MECHANISM UNIT)**

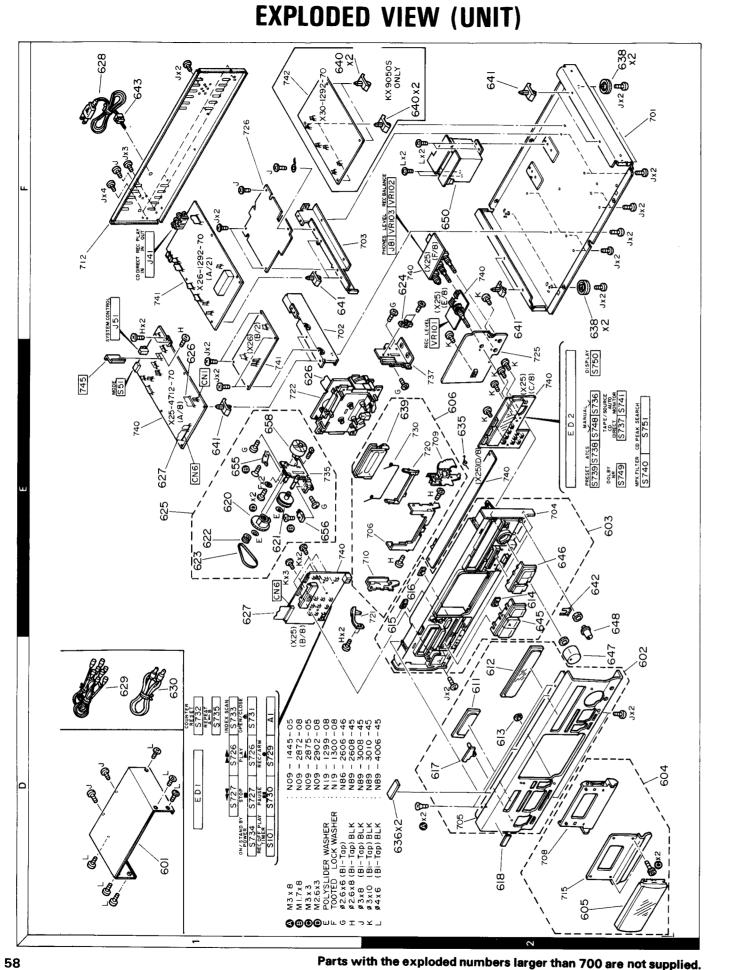
### **EXPLODED VIEW (UNIT)**







## **PARTS LIST**



Ref. No. Address New Part.	Description Desti-
分配条件 女 国	 Tanks 金
642 28 321	
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645 * K29-4327-03 646 * K29-4328-03	z
648 220 * * * * * * * * * * * * * * * * * *	w
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B N09-2872-08 D * N109-2902-08 E * N19-1299-08 F N19-1300-08	
655 1E * S74-0011-08 656 1E * S74-0012-08	
*	ß
DISP	
0756 B30-0432-05 0757 B30-1012-05 0759 B30-102-05 0759 B30-1012-05	w
C501,502 CC45FSL1H221J C503 CEGAKH1H010M C701,702 CEGAKH1E22M C703,704 CK45FFH1H132 C705,705	
C708, 709 CF92FV1H104J C710 CEG4KW1V100M C711 CF92FV1H103J	
	- W
C715 CB04KW1V100M C716 CR04KW1V100M C716 CK45FF1H103Z	
C719 CEO4KW1H471M C720 CF92FV1H103J C721 CF92FV1H104J	<b>≈</b> ω
C724 CF92rUH153J C725 CK45FPH103Z C726 C91-0700-05	νz
C727 C728,729 C728,729 C91-0700-05	

### **PARTS LIST**

Part	#	, E	ECT, AUT® M®		5x6.0x		71 . 0	-	J 50WV 25WV Z 25WV	354V	78. 7. 78. 7.	2 6.3WV 35WV 2	35WV		354V		J 0W V
Back   No.   Color   Color   No.   Color   Color   No.   Color   No.   Color   C		TING HARDWA	CONTROL	LEVEL ES LEVEL VSFØRMER	NSFORMER CREW M1.7X M2.6X WASHER /		0000	PH(U) 10-51) 0A) 10-51)	220PF 1.0UF 2200UF 0.010UF	0.010UF 47UF	0.10UF 10UF 0.010UF	0.010UF 100F 10UF 0.010UF	470F 1000UF	470UF 0.010UF 0.10UF	100F 0.39UF 0.015UF	0.010UF	0.10F 100UF 0.1UF 0.010UF
## 8. 5 / # 4   141   15	*	JACK MOUNT POWER CORE	WIRE BAND WIRE BAND KNOB TAPE KNOB DOLBY	KNOB REC L	POWER TRAN TAPPING SC PAN SCREW POLYSLIDER TOOTED LOC	SWITCH	MOTOR F. 4749.70	LED(SLP-98 LED(SLP-98 LED(SLP-98 LED(SLP-98	CERAMIC BLECTRO ELECTRO CERAMIC BLECTRO	CERAMIC	MF MF	CERAMIC BLECTRO BLECTRO CERAMIC	BLECTRO BLECTRO	MF	ELECTRO MF MF MF MF MF	CERAMIC	CERAMIC ELECTRO CERAMIC CERAMIC
## Ba \$ 1 marks   mark	Parts No.	-3326-05 -0078-05	-0035-05 -0307-05 -4327-03 -4328-03	-4330-04 -4332-04 -0440-05	-0441-05 -2872-08 -2902-08 -1299-08	-0011-08 -0012-08	œ۱.	-1012-05 -1012-05 -1012-05	5FSL1H221J 4KW1H010M 4KW1E222M 5FF1H103Z	5FF1H103Z 1KW1V470M	2FV1H104J 1KW1V100M 2FV1H103J 2FV1H104J	5FF1H103Z 1DW0J102M 1XW1V100M 5FF1H103Z	1KV1V470M	PKW1H471M 2FV1H1033 2FV1H1043	1KW1V100M 2FV1H394J 2FV1H153J	-0700-05 -0700-05 -0700-05	-0700-05 IKW1A101M -0700-05 FF1H103Z
## Ba 2 / # # #   Care		321 342	J61 J61 K29 K29	K29 K29	L07 N099 N1999 N1999	S74 S74		( m m m m	00 C C C C C C C C C C C C C C C C C C	CK4	CF9	C C C C C C C C C C C C C C C C C C C	CE07	26.6	0000	CK4	CX 0.59
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## B & A / M ## (f Page 1)    CABINET	2 #	642	 645 646	647 648 650	650 D E F	655 656	658	0756 0757 0758 0759	0501,502 0503 0701,702 0703,704	C706 C707	6708,709 6710 6711	0713 0715 0715	0717 0718	0720	00722 0722 0724 0724	0726	0728,729 0730 0731
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	Description 品名/複	E LIST	ASSY ID ASSY	ID ASSY ID WLDER ASSY			ARD	ARD N MANUAL (ENGLISH) N MANUAL (FRENCH) N MANUAL (FRENCH) N MANUAL (GE, DU, IT)	ЕУ	ANISM ASSY	X25(CN6) MECHA-X25(CN1) GRD	PLUG				8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	88
	Parts No. 概 語 本 本	6-XX	A401-2903-01 METALLIC C A40-0157-02 PANEL ASSY A60-0222-02 PANEL ASSY A22-1533-02 SUB PANEL A53-1318-03 CASSETTE L	A53-1350-03 CASSETTE L A53-1319-03 CASSETTE L A53-1321-12 CASSETTE H		-0159-04 -0163-04	2334	B46-0143-13 WARRANTY C. B60-0688-00 INSTRUCTION B60-0689-00 INSTRUCTION B60-0689-00 INSTRUCTION B60-0691-00 INSTRUCTION	0142-08 0332-08 0333-08 0334-08	96-02	E35-0377-05 FLAT CABLE E35-0378-05 AC POWER C E30-0974-05 AC POWER C	30-0505-05 30-0977-05 CG	G01-3466-04 TORSION CO G13-0439-04 CUSHION	H50-0198-04 ITEM CARTO H50-0322-04 ITEM CARTO H10-5232-02 P0LYSTYREN	-5233-02 -0002-03	H25-0232-04 PROTECTION H25-0368-04 PROTECTION H25-0651-04 PROTECTION H25-0651-04	J02-1072-05 F00T CLAMPER J19-3504-15 UNIT HOLD
\$ 1 ks	New Parts No. 禁 動 車	KX-6	A01-2903-01 A60-0157-02 A60-0222-02 A22-1533-02 A53-1318-03	A53-1350-03 CASSETTE A53-1319-03 CASSETTE A53-1321-12 CASSETTE	B10-1898-04 B10-1899-04 B11-0237-14 B12-0095-04 B12-0096-14	B12-0159-04 B12-0163-04	-0287-04 -0121-13 -0122-23	B46-0143-13 B60-0688-00 B60-0689-00 B60-0689-00 B60-0691-00	D12-0142-08 D15-0332-08 D15-0333-08 D16-0334-08 D39-0200-05	D40-0996-05	E35-0377-05 E35-0378-05 E30-0459-05 A6	30-0505-05 30-0977-05 CG	G01-3466-04 G13-0439-04 CUSHION	H50-0198-04 H50-0322-04 H10-5232-02	H10-5233-02 H25-0002-03	5-0232-04 5-0368-04 5-0651-04	302-1072-05 ** 311-0177-03 ** 319-3504-15
Add 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Parts No.	3-XX	* A01-2903-01 * A60-0157-02 * A60-022-02 * A22-1533-02 * A53-1318-03	* A53-1350-03 CASSETTE * A53-1319-03 CASSETTE * A53-1321-12 CASSETTE	* B10-1898-04 * B10-1899-04 B110-237-14 * B12-0095-04 * B12-0096-14	* B12-0159-04 B12-0163-04	845-028/-04 846-0121-13 846-0122-23	B46-0143-13 B60-0688-00 B60-0689-00 B60-0689-00 B60-0691-00	* D12-0142-08 * D15-0332-08 * D16-0334-08 * D16-0334-08	* D40-0996-05	# E35-0377-05 # E35-0378-05 FP E30-0459-05 A6 E30-0974-05	E30-0505-05 AC	* G01-3466-04 T0RSION G13-0439-04 CUSHION	H50-0198-04 H50-0322-04 H10-5232-02	H10-5233-02 H25-0002-03	5-0232-04 5-0368-04 5-0651-04	302-1072-05 * J11-017-03 * J19-3504-15

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	# # E											
Description	4 / 施 春	KEY BOARD										
å	雅	SWITCH				01008	DIODE	DIODE	DIODE			5 6 1
		PUSH S	D100E D100E D100E D100E	DIODE DIODE DIODE DIODE DIODE	DIODE DIODE DIODE DIODE DIODE	DIODE DIODE DIODE ZENER	ZENER DIODE DIODE DIODE DIODE	DIODE DIODE ZENER ZENER DIODE	DIODE ZENER ZENER DIODE DIODE	DI 00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DIODE DIODE DIODE DIODE DIODE	DIODE
Parts No.	新品 春 与	540-1064-05	HSS104 1SS133 HSS104 1SS133 S5688B	1SR139-100 KBP02ML-6127 S5688B 1SR139-100 HSS104	155133 S56888 15R139-100 HSS104 15S133	HSS104A 1SS131 HSS104 1SS133 HZS4:7N(B)	RD4.7ES(B) HSS104A 1SS131 HSS104 1SS133	HSS104A 1SS131 HZS6.0N(B2) RD6.0ES(B2) HSS104A	155131 HZS6. 8N(B2) RD6. 8ES(B2) HSS104A 15S131	HSS104A 1SS131 HSS104 1SS133 HSS104	155133 HSS104A 155131 HSS104 155133	S56868 15R139~100
Š	Parts.											
Address	有關										·	
Ref. No.	李 雅 雅 中	S748-751	DS1 -58 DS1 -58 D91 -93 D91 -93	D701-704 D705 D706 D706 D708	0708 0709 0709 0710-712 0710-712	D713,714 D713,714 D715 D715 D716	D716, 718 D717, 718 D717, 718 D719	D720-722 D720-722 D723 D723 D724	D724 D725 D725 D726-741 D726-741	0726-742 0726-742 0743 0743 0743	0745-747 0748-751 0748-751 0752-754 0752-754	0755 0755

### Address   New   Parts No.   Description   B	Telle ohne Parts No. werden nicht	No. werd	e e	٤	t gellefert.					
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C91-0700-05 C6KAFFILHO3Z C6KAFFILHO3Z C6KAFFILHO3Z C6CAKNIALOON C60-47010-05 C60-471100-06 C60-4711000 C	# E	.		2 1	帷幄	- 1		#	#	
CECAKWIHOLOM   CLECTRO   1.0UF   50W	34,73 6,73 9,74			30000	091-0700-05 0K45FF1H103Z 0E04KH1V100M 091-0700-05 0E04KW1A101M	ERANI ERANI ERANI ERANI	10F	3 35WV 10WV		
CECAKWIVYOON   CLECTRO   10UF   35W					71H010M 139-05 71H010M 71HR22M SL1H220	ELECTRO FILM ELECTRO NP-ELEC CERAMIC		2020		
CECAKWIVIOON   CLECTRO   100F   158     CASFFILLION   CLECTRO   100F   158     CKASFFILLION   CLECTRO   100F   259     CCCAKWINION   CLECTRO   100F   250     CCCAKWINION   CLECTRO   100F   250     CCCAKWINION   CLECTRO   100F   350     CCCAKWIVION   CCCAMP   100F   100F   100F     CCCAKWIVION   CCCAMP   100F   100F   100F     CCCAKWIVION   CCCAMP   1	1,81				11 C 2 2 1 1 C 2 2 2 1 C 2 2 2 1 C 2 2 2 1 C 2 2 2 1 C 2 2 2 2	BLECTRO BLECTRO BLECTRO BLECTRO BLECTRO	100F 220F 2200F 1.00F 1.00F	3552 1652 1652 5062 5062 5062 5062		
952 C90-1826-05 BACKUP 0.047F 5.5 CEGAKWILHR33M ELECTRO 0.33UF 504 CEGAKWILHR33M ELECTRO 130UF 504 CEGAKWILHR33M ELECTRO 100F 354 CEGAKWILHR33M ELECTRO 100F 354 CEGAKWILHR33M ELECTRO 100F 354 CKASEBIH661K CERAMIC 560PF K ELO-416-05 FLAT CABLE CONNCTOR ELO-4215-05 ELO-4215-05 FLAT CABLE CONNCTOR SITE 1-0188-05 MINATURE PHONE JACK SYNC Ell-10180-05 MINATURE PHONE JACK SYNC Ell-10190-05 MINATURE CLAMPER 1ACK SYNC Ell-10190-05 MINATURE CLAMPER 1ACK SYNC PHONE JACK SYNC Ell-10190-05 MILTI-COMP 1000PX4 CT R50-0624-05 MILTI-COMP 1000PX4 R514R83D471J FL-PROOF RS 490 J RS14R83D471J FL-PROOF RS 490 J RS14R83D471J FL-PROOF RS 6.8 J RS14R83D689J FL-PROOF RS 6.8 J RS14R83D69J FL-PROOF RS 6	31,982				11C10	BLECTRO BLECTRO CERAMIC BLECTRO	100/F 100/JF 0.010UF 10UF 1.0UF	354V 164V 22 354V 504V		
CEGAKNIVIOOM   CERANIC   S60PF   K	75.99 9.99 9.95 9.95				90-182 604KW1 F92FV1 604KW1	BACKUP BLECTRO MF ELECTRO BLECTRO	0.047F 0.33UF 3300PF 10UF 4.7UF	5.5WV 504V J 354V 354V		
1E	96-0				K45FB1H56 E04KW1V10	CERAMIC BLECTRO	60P 0UF	K 35WV		
111-0098-05 WIRE CLAMPER  L78-0290-05 RESONATOR BHHZ  H90-0809-05 MULTI-COMP 10KX4  H90-0818-05 MULTI-COMP 1000PX4  R314RB3D21J FL-PROOF RS 490  R314RB3D22J FL-PROOF RS 39  HS14KB3D10J FL-PROOF RS 39  HS14KB3D10J FL-PROOF RS 6.8  R314KB3D10J FL-PROOF RS 6.8  R314KB3D10J FL-PROOF RS 6.8  R314KB3D10J FL-PROOF RS 6.8  R314KB3D6RBJ FL-PROOF RS 6.8  R10-469-05 PGTENTIONETER (50X) RECT  R10-408-05 PGTENTIONETER (50X) RALAN  R05-5045-05 PGTENTIONETER HEAD PHONE  S31-2094-05 SLIDE SWITCH HODEKKX/XS  S31-2094-05 SLIDE SWITCH FIREAY  RACO-1064-05 PGHS SWITCH FIREAY		nn nn			40-4160-0 40-4215-0 11-0188-0 11-0190-0	ABLE TURE JACF	NNCTOR INNCTOR INE JACK HEAD P	SYNCR0 HONES		
C					0-8600-	CLAMPE				
A					78-0290-0	RESONATOR	8MHz			
RD14NB2E2223	_ W 10				90-0809-05 90-0824-05 90-0478-05 514KB3D471	COMP COMP SOF R	10KX4 4.7KX6 1000PX4 490 220	- 88		
RD14NB2E470J   RD	841.WA			<del></del>	4KB3A 4KB3A 4KB3D 4KB3D	-PROOF R -PROOF R -PROOF R	.0.0	444		
\$51-2093-05 MACNETIC RELAY \$31-2094-05 SLIDE SWITCH MODECKR/X \$31-1036-05 SLIDE SWITCH TIMER \$31-1036-05 PUSH SWITCH KEY BOARD	321		<del>*</del>		4NB2E470 -1619-05 -4088-05 -5045-05	RD TRIMMING POT- POTENTIOMETER POTENTIOMETER	7 50K) HEAD P	J 1/4W IETER ADJ IEC LEVEL ALANCE IONE LEVEL		
-741 S40-1064-05 PUSH SWITCH KEY	7.				SS1-2093-05 S31-2094-05 S31-1036-05 S40-1064-05 S40-1064-05	IC REL SWITCH SWITCH WITCH	A MODE	(R/XS) (ARD) (ARD)		

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### **PARTS LIST**

Re- marks	編											
Jesti-	# @											
	华	16WV 10WV 35WV 35WV	5 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	35%V 7. 35%V 35%V	50WV	35WV 7 3 3 3 5 7 7	מממממ	הצחחה	100K 35KV 7 5	77877 78877 788	358V 358V J	50WV 35WV
Description	昭 化/ 施	330UF 220UF 4.7UF 10UF 2200PF	0.56UF 0.33UF 100UF 10UF 0.1UF	10UF 2200PF 0.56UF 0.33UF 10UF	1800PF 3300PF 220UF 4700PF 1.0UF	10UF 68PF 0.10UF 10UF 3300PF	100PF 6800PF 2200PF 6800PF 1800PF	2200PF 560PF 2200PF 330PF 0.022UF	330UF 10UF 100PF 680PF 0.010UF	0.082UF 0.022UF 10UF 0.010UF	100UF 10UF 10PF 0.015UF 2200PF	5600PF 0.47UF 10UF
	***	BLECTRO BLECTRO BLECTRO BLECTRO	MF MF ELECTRO BLECTRO BLECTRO	BLECTRO MF MF MF BLECTRO	MF ME ELECTRO MF ELECTRO	ELECTRO CERAMIC MF ELECTRO POLYSTY	THEFE INTER	문문문문문	BLECTRO FLECTRO FILM CERAMIC	MF MF ELECTRO CERAMIC POLYPRO	BLECTRO BLECTRO CERAMIC MF	MF ELECTRO BLECTRO
Parts No.	海田市中	CEO4KW1C331M CEO4KW1A221M CEO4KW1V4R7M CEO4KW1V100M CF92FV1H222J	CF92FV1H564J CF92FV1H334J CE04KW1E101M CE04KW1V100M CE04KW1H0R1M	CEO4KW1V100M CF92FV1H222J CF92FV1H564J CF92FV1H334J CEO4KW1V100M	CF92FV1H182J CF92FV1H332J CEO4KW1E221M CF92FV1H472J CEO4KW1H010M	CEO4KW1V100M CC45FSL1H680J CF92FV1H104J CEO4KW1V100M CQ09FS1H332J	C91-1432-05 CF92FV1H682J CF92FV1H222J CF92FV1H682J CF92FV1H182J	CF92FV1H223 CF92FV1H5613 CF92FV1H2223 CF92FV1H331K CF92FV1H2233	CEO4KW1A331M CEO4KW1V100M C91-1432-05 CK45FB1H601K CF92FV1H103J	CF92FV1H823J CF92FV1H223J CE04KW1V100M CK45FF1H103Z C91-0774-05	CEO4KW1C101M CEO4KW1V100M CC45FSL2H100D CF92FV1H153J CF92FV1H222J	CE04KW1HR47M CE04KW1HR47M CE04KW1V100M
New Parts	16					*						
dress	位置											
÷.	物医鼻布	022 23 024 25 041 42 043 44 045 44	C49 ,50 C51 ,52 C53 ,54 C101,102	C105,106 C107-110 C111,112 C113,114	C117,118 C119,120 C131,132 C201,202 C203,204	C205,206 C207,208 C209,210 C211,212 C213,214	C215,216 C217,218 C219,220 C221,222 C223,224	C225,226 C227,228 C229,230 C231,232 C241,242	C243,244 C245 C301-304 C305,306 C307,308	C309,310 C311,312 C313,314 C315	C317 C318 C319 C320 C321,322	0324 0324

r.canada	E:Europe	M:Other Areas
KCO.	T:England	X.Australia
E-Scal full layin	Y:PX(Far East, Hawaii)	Y:AAFES(Europe)

A indicates safety critical components.

Les articles non mentionnes dans le Part Telle onne Parts No. werden nicht geliefe	es non mentionnes dans Parts No. werden nicht	es da	Les articles non mentionnes dans le <b>Parts No</b> . ne sont pas fournis, relie onne Parts No. werden nicht geliefert.	No.5
Ref. No.	Address 12	New Parts	Parts No. 概由申与	Description Desti-Re- 路品名/栽苗 thinanks
IC82 IC95 IC95 IC96 IC702			RC4565D-D NJM4565D RC4565D BA6138 BA17805T	IC(OP AMP X2) IC(OP AMP X2) IC(OP AMP X2) IC(OR AMP X2) IC(ROOT AMP X2) IC(VOLTAGE REGULATOR)
IC702 IC703 IC704 IC705,706 IC705,706			UPC7805AHF BA17812T BA6229 BA6209 BA10393	IC(VOLTAGE REGULATOR/ +5V) IC(VOLTAGE REGULATOR) IC(MOTOR DRIVER) IC(MOTOR DRIVER) IC(MOTOR DRIVER) IC(DUAL COMPALATOR)
IC708 IC709 IC709 IC710		*	PST529D BA17805T UPC7805AHF CXP82320-105Q 2SC2458(Y,GR)	ICCSYSTEM RESET) ICCVOLTAGE REGULATOR) ICCVOLTAGE REGULATORY +5V) TRANSISTOR
992 995 -97 995 -97 9700 9700			2SC3311A(Q,R) 2SC2458(Y,GR) 2SC3311A(Q,R) DTA143TS UN4116	TRANSISTOR TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR
6701 6702 6703 6703			2SB1370 2SA1048(Y, GR) 2SA1309A(Q, R) DTC124ES UN4212	TRANSISTOR TRANSISTOR TRANSISTOR DICTTAL TRANSISTOR TRANSISTOR
9704-706 9704-706 9707 9707 9708			2SA1048(Y,GR) 2SA1309A(Q,R) DTC143TS UN4216 DTC124ES	TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR DIGITAL TRANSISTOR
9708 9709 9709 9710-712 9710-712			UN4212 2SC2458(Y, GR) 2SC3311A(Q,R) DTC113ZS UN4219	TRANSISTOR TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR
9713 9713 9714 9714 9715			2SC2458(Y,GR) 2SC3311A(Q,R) 2SA1048(Y,GR) 2SA1309A(Q,R) DTA143TS	TRANSISTOR TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR
9715 9716 9716			UN4116 2SC2458(Y,GR) 2SC3311A(Q,R)	TRANSISTOR TRANSISTOR TRANSISTOR
A1 REC	CORD/PI	ଅଟି	AYBACK UNIT	ELECTRIC CIRCUIT MODULE (X26-1292-70 : 9050S)
C1 ,2 C3 ,4 C5 ,6 C7 ,8			CC45FSL1H101J CF92FV1H222J CF92FV1H563J CE04KW1V100M CE04KW1C1331M	100PF J 2200PF J 0.056UF J 10UF 35WV 330UF 16WV
C11 ,12 C13 ,14 C15 ,16 C20 ,21	· · · · · · · · · · · · · · · · · · ·		CF92FV1H182J CF92FV1H821J CF92FV1H103J CK45FF1H223Z	MF 1800PF J MF 820PF J MF 0.010UF J CERAMIC 0.022UF Z
ivenibosco.1		1.	Melica Boogle	

P.Canada E.Europe M.OURI AIRBS L'Scandinavia Y:PX(Far East, Hawaii) T:Ant L'S(LLIODE)

 $\Delta$  indicates safety critical components.

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### **PARTS LIST**

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\* New Parts
Parts without Parts No. are not supplied.
Les articles from rendronnes dans le Parts No. ne sont pas fournis.
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Ref. No.	Address	P g	Parts No.	Description	Desti-
中医中中	包置	搟	中中吸	寒 吨 化一剂 本	##
102 1011 1021 1021 1031			CXA1330S CXA1330S NJM4565D-D RC4565D-D UPC1297CA	ICCDGLBY B/C) ICCDGLBY B/C) ICCGP AMP X2) ICCGP AMP X2) ICCODL HX PRG SYSTEM)	
1041 1042 1042 1051			NJM4565D-D RC4565D-D TC4052BP XRU4052B TC9164N	IC(OP AMP X2) IC(OP AMP X2) IC(CAT WEND X2) IC(CAT WEND WEND X2) IC(MULTIPLEXER) IC(16CH BILATERAL SELECTOR SW)	
1C52 Q1 -6 Q7 -10 Q7 -10 Q11 -14			TC9162N 2SK170(BL, V) 2SC2458(Y, GR) 2SC3311A(Q, R) DTC143TS	ICCANALGG SWITCH ARRAY) PET TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR	
911 -14 915 915 919 ;20 919 ;20			UN4216 DTC124ES UN4212 2SC2458(Y, GR) 2SC3311A(Q,R)	TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR	
021 -24 025 -30 025 -30 031 ,32			2501302(S,T) 2502458(Y,GR) 25033114(Q,R) 2503940A(R,S) 2503246	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR	
034 35 034 35 045 144 046			DTC143TS UN4216 2SD1302(S,T) 2SD2061 2SB1370	DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR	
047 048 048 049 ,50			DTC124ES UN4212 DTC113ZS UN4219 DTC124ES	DIGITAL TRANSISTOR TRANSISTOR TOTIAL TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR	
049 ,50			DOLBY UNIT(X3C	# (O	
C1 .2 C3 .4 C5 .6 C7 .8			CK73FB1H182K CEO4KW1E221M CF92FV1H103J CK73FB1H182K CEO4KW1E221M	CHIP C 1800PF K 220UF 25WV MF 0.010UF J CHIP C 1800PF K ELECTRO 220UF 25WV	
C13 114 C15 116 C17 118 C21 22 C23 24			CC73FSL1H221J CF92FV1H103J CE04KW1C220M CE04KW1C220M CF92FV1H104J	CHIP C 220PF J MF 0.010UF J ELECTRO 22UF 16WV MF 0.10UF J	
C25 ,26 C27 ,28 C29 ,30 C31 ,32 C33 ,34			CEO4KWIV100M CF92FV1H224J CF92FV1H183J CF92FV1H104J CF92FV1H223J	ELECTRO 100F 35WV MF 0.22UF J MF 0.018UF J MF 0.100F J MF 0.022UF J	
C35 ,36 C37 ,38			CF92FV1H224J CF92FV1H105J	MF 0.22UF J MF 1.0UF J	
L:Scandinavia Y:PX(Far East, H Y:AAFES(Europe)	L:Scandinavia Y:PX(Far East, Hawaii) Y:AAFES(Europe)	2 F X	KUSA P:Canada T:England E:Europe X:Australia M:Other Areas	N:KX-9050 S:KX-9050S	critical comp

No.7

Ref. No.	Address	Š	Parts No.	å	Description		Desti-	8
-		ž *	中 市 市	類	名/汽车		metion 在 向	marks 事場
C409 C411 C412 C413 C414			CBO4KW1V4R7M CBO4KW1C4R7M CBO4KW1C220M CBO4DW1C471M CBO4KW1C470M	BLECTRO BLECTRO BLECTRO BLECTRO BLECTRO	4.70F 35 4.70F 35 22UF 16 470UF 16	0 M M M M M M M M M M M M M M M M M M M		
C415 C416,417 C418,419 C420 C421,422			CEO4KW1V100M CEO4KW1E101M CEO4KW1C101M CEO4KW1A101M CF92FV1H104J	ELECTRO ELECTRO ELECTRO AP	100F 100UF 100UF 100UF 100UF 0.10UF	35WV 25WV 16WV 10WV		
C505 C506,507 C508 C511,512			CEO4KW1C220M CEO4KW1E221M CEO4KW1C101M CF92FV1H104J	BLECTRO BLECTRO BLECTRO	22UF 16 220UF 25 100UF 16 0.10UF J	A#9		
341			E13-0636-05	PHØNØ JACK I	LINE I/0,CD	DIRECT		
			J11-0098-05	WIRE CLAMPER				
L1 ,2 L21 ,12 L23 ,24 L31 ,32		*	L39-0190-05 L79-0792-05 L40-2235-29 L39-0190-05 L32-0545-05	TRAP COIL LC FILTER SMALL FIXED IND TRAP COIL BIAS OSCILATING	INDUCTOR(22MH TING COIL	С£, Н		
L33		*	L32-0544-05	ØSCILATING CO	COIL			
R320 R321 R324,325 R326		*	R92-0219-05 RS14KB3A470J R014NB2E4R7J R014NB2E102J R014G8EEZR2JTS	FUSE RESIST FL-PROOF RS RD RD RD FL-PROOF RD	10 4.7 1.0K	1/4W 1/4W 1/4W 1/4W		
R432 R435,436 VR1 .2 VR3 .4 VR5 .6		* *	RD14GB2E2R2JTS RD14GB2B361JTS R12-0604-05 R12-3685-05 R12-3686-05	FL-PROOF RD FL-PROOF RD TRIMMING POT TRIMMING POT TRIMMING POT	2.2 360 (100) PB L (10K) PB E (22K) PB L	1/4W 1/4W EVEL Q ADJ EVEL		w
VR21,22 VR31,32			R12-3686-05 R12-5651-05	TRIMMING POT	(22K) REC. (100K)BIAS	LEVEL		
D1 ,2 D1 ,2 D31 ,2 D41 ,42	<u>:</u>		HZS5.1S(B2) RD5.1JS(B2) HSS104 1SS133 HZS8.2N(B2)	ZENER DIØDE ZENER DIØDE DIØDE DIØDE ZENER DIØDE				
041 ,42 043 043 044 ,45 044 ,45			RD6.2ES(B2) HZS9.2S(B2) RD8.2JS(B2) HZS9.2N(B2) RD8.2ES(B2)	ZENER DIØDE ZENER DIØDE ZENER DIØDE ZENER DIØDE ZENER DIØDE				
053 -56 053 -56 057 057 058 ,59			HSS104 1SS133 HZS3.9N(B2) R03.9ES(B2) HSS104	DIODE DIODE ZENER DIODE ZENER DIODE DIODE				
DSB ,59 IC1 IC1			15S133 NJM4565D-D RC4565D-D	DIODE IC(OP AMP X2 IC(OP AMP X2	22			
								1

P:Canada E:Europe M:Other Areas

A indicates safety critical components.

A indicates safety critical components.

N:KX-9050 S:KX-9050S L:Scandinavia Y:PX(Far East, Hawaii) Y:AAFES(Europe)

62

Parts without Parts No. are not supplied. Les articles non mentionnes dans le Parts No. ne sont pas fournis. Teile onne Parts No. werden nicht geliefert.

indicates safety critical components.

P:Canada E:Europe

K:USA T:England X:Australia

Y:PX(Far East, Hawaii) f:AAFES(Europe) .Scandinavia

### **PARTS LIST**

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No.9

Les articles non mentionnes dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert. Parts without Parts No. are not supplied.

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中期温井	12	ş *	4	***	Beschiption Beschiption	*	nation #	marks **
C163,164 C165,166 C167,168 C169,170			CP92FV1H102J CF92FV1H822J CF92FV1H224J CF92FV1H823J CF92FV1H823J	######################################	1000PF 8200PF 0.22UF 0.082UF	יחימים		
173,1 175,1 177,1 19,1			F92FV1H104 F92FV1H474 F92FV1H224 F92FV1H104 E04KW1E221	MF MF MF NF ELECTRO		7 7 7 7 7 8 8 8 8		
C185, 186 C187, 188 C189, 190 C191, 192 C193, 194			CF92FV1H334J CF92FV1H823J CF92FV1H474J CF92FV1H104J CF92FV1H224J	높높뜿뜣뜣	E04-1	הטטטט		
C195, 196 C197, 198 C199, 200 C201, 202 C203, 204		· · · · · · · · · · · · · · · · · · ·	CF92FV1H473J CF92FV1H153J CF92FV1H822J CF92FV1H102J CF92FV1H222J		0.047UF 0.015UF 8200PF 1000PF 2200PF	הטהטה		
C205,206 C207,208 C209,210 C211,212 C213-216		<del> </del>	CF92FV1H471J CF92FV1H182J CF92FV1H393J CF92FV1H104J CF92FV1H182J	말빛말말말	470PF 1800PF 0.039UF 0.10UF 1800PF	המהמת		
C217,218 C219,220 C221,222 C223,224 C225,226			CF92FV1H474J CF92FV1H223J CF92FV1H104J CF92FV1H183J CF92FV1H104J	<b>2222</b>	0.47UF 0.022UF 0.10UF 0.018UF 0.10UF	טטטטטט		
C227,228 C231,232 C233,234 C235,236 C237,238	-		CF92FV1H182J CE04KW1C101M CF92FV1H103J CE04KW1C330M CE04KW1C101M	MP ELECTRO MF ELECTRO ELECTRO	1800PF 100UF 0.010UF 33UF 100UF	J 16WV J 16WV 16WV		
39			E04KW1V10	ECT	100F	35WV		
L1 -4 W70 -88 W70 -88			L79-0792-05 R92-0670-05 R92-2052-05	LC FILTER CHIP R CHIP R	0 6HM 0	J 1/10W		
K1			S51-2089-05	MAGNETIC REL	AY			
01 ,2 01 ,2 03 ,4			HZS8.2S(B2) RD8.2JS(B2) HZS5.1S(B2) RD5.1JS(B2) HZS6.2N(B2)	ZENER DIØDE ZENER DIØDE ZENER DIØDE ZENER DIØDE ZENER DIØDE				
D5 D6 D6 D7 IC1 ,2			RD6.2ES(B2) HZS13N(B2) RD13ES(B2) MA110 M5238L	ZENER DIØDE ZENER DIØDE ZENER DIØDE DIØDE IC(OP AMP X2	-0			
IC3 ,4 IC5 ,6		*	CXA1417S NJM4565L-D	IC(DOLBY NR IC(OP AMP X	STYPE)			

Desti- Re-nation marks 在 向審集 1647 1647 0.10UF 1800PF 0.47UF 0.022UF 0.10UF 0.22UF 0.047UF 0.015UF 8200PF 1000PF 2200PF 470PF 1800PF 0.039UF 0.018UF 0.10UF 1800PF 1.0UF 100PF 220UF 220PF 0.010UF 22UF 3300PF 0.10UF 10UF 0.22UF 0.018UF 0.10UF 唱 名/義 Description 输 MF ELECTRO MF MF MF CF92FV1H183J CF92FV1H104J CF92FV1H182J CE04KW1H010M CC73FSL1H101J CF92FV1H182J CE04KW1C101M CC73FSL1H221J CF92FV1H103J CE04KW1C220M CE04KW1E221M CC73FSL1H221J CF92FV1H103J CE04KW1C220M CF92FV1H332J CF92FV1H104J CF92FV1H182J CF92FV1H474J CF92FV1H223J CF92FV1H104J CF92FV1H102J CF92FV1H222J CF92FV1H471J CF92FV1H182J CF92FV1H393J CF92FV1H393J CF92FV1H681J CF92FV1H102J CF92FV1H822J CF92FV1H224J CF92FV1H823J CF92FV1H153J CF92FV1H104J CF92FV1H474J CF92FV1H224J CF92FV1H104J CB04KW1E221M CF92FV1H334J CF92FV1H823J CF92FV1H474J CF92FV1H104J CF92FV1H224J CF92FV1H473J CF92FV1H153J CF92FV1H153J CF92FV1H1D4J CE04KW1V100M CF92FV1H224J CF92FV1H1B3J CF92FV1H104J CF92FV1H223J CF92FV1H224J CF92FV1H105J CF92FV1H393J CF92FV1H681J Parts No. 幸福 Address New Parts 位 画 新

C103,104 C105,106 C107,108 C111,112 C113,114

C117, 118 C119, 120 C121, 122 C123, 124 C125, 126

C127, 128 C131, 132 C133, 134 C135, 136 C137-142

C143,144 C145,146 C147,148 C149,150 C151,152

C153,154 C155,156 C157,158 C159,160 C161,162

P:Canada E.Europe T:England Y:PX(Far East, Hawaii) Y: AAFES(Europe)

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Desti- Re-nation marks 在 由 審集

Description

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Parts No. 嘘

Address New Parts 位 首 新

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N19-1240-08 N19-1241-08 N19-1302-08 N19-1303-08 N19-1304-08

118 117, 110, 110, 110, 110,

/2.6X5.5X0.13

PAN HEAD MACHINE SCREW
SCREW
LEAF SWITCH
FRONT END UNIT, ELECTRIC UNIT
WIRE CLAMPER

N30-2630-46 N73-2004-46 S74-0005-08 W02-1147-08 J61-0094-08

33.55 A 25.55 A 25.55

No. 12

### **PARTS LIST**

J 1/6W

2.2K

ERASE HEAD RECORD/PLAYBACK HEAD

T32-0325-05 T34-0343-05 RD14BB2C223J

MAIN BELT REEL BELT PINCH ROLLER ASSY PINCH ROLLER ASSY REEL MOTOR ASSY

D16-0335-08 D16-0325-08 D14-0319-08 D14-0339-08 T42-0615-08

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A indicates safety critical components.

M:Other Areas

E.Europe

K:USA T:England X:Australia

> Y:PX(Far East, Hawaii) Y:AAFES(Europe)

> > A indicates safety critical components

M:Other Areas P:Canada E.Europe

K:USA T:England X:Australia

Y:PX(Far East, Hawaii) Y:AAFES(Europe) L'Scandinavia

L:Scandinavia

arts No. ne sont pas fournis. Parts without Parts No. are not supplied.

Les articles non mentionnes dans le Par	Telle onne Parts No. werden nicht geliefs
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Parts
海通
RC4565L-D CXA1417S NJM4558L 2SC2878(B) 2SD1302(S,T)
2SD2012 2SD2061 2SB1370 2SB1375 2SD2012
2SD2061 2SB1370 2SB1375 DTC113ZS UN4219
NISM ASS
A10-2982-08 A11-0762-08 B03-2755-08 B30-1036-05
D01-0146-08 D03-0295-08 D03-0296-08 D10-2430-08 D10-3284-08
D10-3285-08 D15-0308-08 D15-0321-08 D32-0191-08 E35-0387-08
E35-0436-08 E35-0437-08 E35-0438-08 E35-0439-08
G01-2471-08 G01-3413-08 G01-3482-08 J21-5881-08 J21-5882-08
J30-0287-08 J39-0169-08 N09-2760-08 N09-2762-08
N09-2765-08 N09-2903-08 N09-2904-08 N09-2905-08 N09-2906-08
N14-0189-08 N14-0190-08 N19-1235-08 N19-1239-08

### **SPECIFICATIONS**

Recording system:	4-Track, 2-channel stereo AC Bias System Record/play × 1
170005	Erase × 1
Motors:	DC motor × 4
	0.024% (W.R.M.S.)
Fast-winding time:	About 75 seconds (C-60)
Frequency response (±3 de	3) - 20 dB recording:
Normal tape:	20 — 19.000 Hz
CrO <sub>2</sub> tape:	20 — 19.000 Hz
Metal tape:	20 — 22.000 Hz
Signal-to-noise ratio	80 dB (DOLBY S-type NR ON)
	(KX-9050S only)
•	75 dB (Dolby C-type NR ON)
•	67 dB (Dolby B-type NR ON)
!	59 dB (Dolby NR OFF)
Harmonic distortion	0.7% (at 1 kHz,
	0 VU with
	metal tape)
Input sensitivity/Impedance	
LINE IN:	77.5 mV/50 k ohms
	460 mV/10 k ohms
Output level/Impedance	
	490 mV/1 k ohms
Headphones:	2.3 mW/8 ohms

General
Power consumption: 26 W (KX-9050)
23 W (KX-9050S
<b>Dimensions</b> : W: 440 mr
H: 138 mr
D: 328 mr
Weight (Net): 7.5 kg (KX-90505
7.3 kg (KX-9050)

We follow a policy of continuous advancements in development. For this reason these specifications may be changed without

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KENWOOD ELECTRONICS DEUTSCHLAND GMBH Rembrücker-Str. 15, 6056 Heusenstamm, Germany

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13 Boulevard Ney. 75018 Paris, France

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